2018

Universal Implications for the Effects of Strong Kids Social and Emotional Learning Curriculum on Students' Social-Emotional Competency: A Quantitative Analysis

Michele R. Hetrick

Universal Implications for the Effects of *Strong Kids* Social and Emotional Learning Curriculum on Students' Social-Emotional Competency: A Quantitative Analysis

By

Michele R. Hetrick

A Dissertation proposal submitted in partial fulfillment
of the requirements for the degree of

Doctor of Education
in
Learning and Leading

University of Portland
School of Education

2018

Universal Implications for the Effects of Strong Kids Social and Emotional Learning Curriculum on Students' Social-Emotional Competency: A Quantitative Analysis

by

Michele Hetrick

This dissertation is completed as a partial requirement for the Doctor of Education (EdD) degree at the University of Portland in Portland, Oregon.

Approved:

Redacted

Chairperson — March 27, 2018 — Date

Redacted

Committee Member — March 27, 2018 — Date

Redacted

Committee Member — March 27, 2018 — Date

If applicable:

Additional Committee Member — Date

Additional Committee Member — Date

Approved:

Redacted

Graduate Program Director — 3-27-18 — Date

Redacted

Dean of the Unit — 4/3/18 — Date

Redacted

Dean of the Graduate School — March 27, 2018 — Date

Abstract

The goal of this study was to determine if the *Strong Kids* social and emotional learning curriculum (2nd ed.) could serve as a universal tool for developing social-emotional competency with students in grades K to 6. This was the first study to investigate the second edition of the program and only the second to include a school-wide population. The study followed a quasi-experimental, non-equivalent control group design. Knowledge test scores and SEL competency ratings were incorporated into the pretest-posttest design in order to measure student growth between schools (Treatment, $N = 399$; Control, $N = 492$). There were no significant differences between groups prior to the study. An ANCOVA revealed statistically significant knowledge gains for students receiving English language support ($p < .05$). Students at the primary ($p < .01$) level experienced statistically significant decreases in externalizing behaviors and all students experienced statistically significant decreases for internalizing behaviors. There was a slight degree of social validity overall (64%). Although not all findings were congruent with previous *Strong Kids* work, many were aligned with CASEL (2017) indicating the *Strong Kids* treatment is beneficial when implemented with fidelity. As indicated throughout research, students who were able to demonstrate high levels of social-emotional competency were able to perform better behaviorally and academically (Durlak et al., 2011; Jones & Doolittle, 2017).

Acknowledgements

There are so many people I would like to acknowledge for their support in this work. The dissertation process is one that I thought would be similar to previous academic journeys. It turns out, this process was far more challenging than I could have ever imagined.

To Dr. Hillary Merk: Thank you for believing in me, even when I did not. Thank you for empowering me to make professional judgements that enhanced the work and for helping me to understand how all of the pieces fit together.

To Dr. Nicole Ralston: Thank you for all of the extra time teaching me to analyze data. Your expertise in quantitative educational research has inspired me to embrace data and be more critical of the things I read. I will no longer look at research at face value.

To Dr. Randy Hetherington: For understanding, more than anyone else, how the loss of my mom has impacted this work. Thank you for checking in on me. Thank you for your direction and dedication to my work.

To the teachers and students at both schools: Without you this work would not be complete. There should be an educational medal of honor for all of you for having to listen to the details of my study for so long.

To my dear friend Jamie Reddy for knowing what I needed to hear even when I wasn't ready for it. For thinking from a student first lens and taking this journey with me.

Thank you to Alexandra N. Nowodworski, who helped me to keep this study moving forward. Without you making copies for three grade levels every week, I might still be at the copy machine.

To my personal students from the 2016-2017 and 2017-2018 school years. Fifth grade is challenging work. Thank you for letting me help you research through the lens of my doctoral work. I am proud of all of you. Thank you for engaging with me. This project will always be more about you than it will ever be about me.

To Dr. Megan Wright. Thank you for blazing the trail and then helping me to navigate it too. I appreciated you allowing me to process out loud when it didn't seem like what I wanted to say made sense. I appreciate you so much.

To Dr. Amy Petti and Ms. Tara Bourland-Black for being the first leaders I ever looked up to and respected in K-12 education. The two of you are the most compassionate educational leaders I have ever had the pleasure of working with.

Finally, to my family. You are the reason I began this journey. Thank you for believing in me. Thank you for giving me the space I needed to do the work. Thank you for wiping my tears when I cried and thank you for loving me. The next chapter is about to begin.

Dedication

This dissertation is dedicated to my family. First, to my son who has never known a mom who has not been going to school. Fourteen years of school are coming to a close and we will finally have more time together buddy, I promise. To my husband for supporting me and understanding that this work was not always easy for me to articulate. To my brothers who always kept things light and reminded me to stop and look around once in awhile. Also, to my in-laws. Thank you for the encouragement along the way. Thank you for being proud of me. This work takes a village and I definitely had one. Finally, to my parents, Mom, although you were unable to see the completion of this project, you always have been and will continue to be with me. And Daddy, without your unconditional belief in me I know that it would not have been able to see "the whole picture" and keep moving forward. To you all, thank you for understanding when I couldn't participate because I had to stay focused on the writing. We made it! I love you.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

There is growing agreement amongst educational researchers and psychologists that students should be able to perform academically, work well with others, and be responsible citizens (Burroughs & Barkauskas, 2017; Chodkiewicz & Boyle, 2017; Durlak, Weissberg, Dyminicki, Taylor, & Shellinger, 2011; Jones & Doolittle, 2017; Payton et al., 2008). Research has suggested enhancing prosocial behaviors through social-emotional learning can propel students toward stronger academic and behavioral outcomes (Durlak et al., 2011; Zins, Weissberg, Wang, & Walberg, 2004). Social-emotional learning (SEL) has been referred to by several names over the last two decades: 21st century skills, soft skills, and character education (Jones & Doolittle, 2017). Jones and Doolittle (2017) assert SEL involves "children's ability to learn about and manage their own emotions and interactions in ways that benefit themselves and others," and ultimately will "help children and youth succeed in school, the workplace, relationships, and citizenship" (p. 4).

More studies than can be mentioned in a single investigation have found students who are able to demonstrate positive prosocial behaviors experience higher academic achievement (Benner, Kutash, Nelson, & Fisher, 2013; Brackett, Rivers, Reyes, & Salovey, 2012; Cook et al., 2015, Durlak et al., 2011). Both Caprara et al. (2000) and Taylor, Oberle, Durlak, and Weissberg (2017) presented longitudinal studies, to exploring prosocial and aggressive behaviors as predictors of academic achievement and peer relationships. Caprara et al. (2000) found positive prosocial behavior, as a result of social-emotional learning at the third grade level, strongly predicted academic outcomes and positive peer relationships at the eighth grade level.

Taylor et al. (2017) found that strong social-emotional competence not only increased academic outcomes, but results transcended both race and demographic barriers. Zins et al. (2004) added SEL has been able to demonstrate a moderate to large effect (*ES* range = .22 to .61) on overall academic achievement across grade levels K-12.

Hurd and Deutsch (2017) indicated, "competent adult staff" are also an important element needed in order to promote social-emotional learning in any program (p. 98). Adult responsibilities, according to Hurd and Deutsch, include setting up the structure of the environment, facilitating and modeling positive social norms, providing opportunities for students to belong, and promoting prosocial skill building. As an example, classroom teachers aid in social-emotional competency for students by maintaining high-expectations, developing caring student-teacher relationships, and facilitating engaging learning environments. In addition, there is common acknowledgement in the educational community, that when students feel welcome in the classroom they typically do better both behaviorally and academically (Durlak et al., 2011; Hurd & Deutsch, 2017; Jones & Doolittle, 2017; Taylor et al., 2017).

Toward these aspirations and with these understandings about student learning, the *Elementary and Secondary Schools Act*, signed into law by President Obama on December 10, 2015, allowed for a broader definition of student success and began to reduce federal government influence over student growth goals for schools and accountability guidelines for certain nonacademic factors are being added to current state requirements in order to address school climate, student engagement, and student safety concerns across the nation (U.S. Department of Education, 2017). Each state is

now required to seek out or develop programs that meet the criteria at all grade levels K-12. As one component of state programs, school districts must establish on-going support for student learning on a social-emotional level that is generalizable across curricular areas and transferrable to life outside of the classroom (U.S. Department of Education, 2017). Prior to this legislation, all 50 states had a form of SEL for pre-school aged children; however, only four (Illinois, Kansas, West Virginia, and Pennsylvania) had standards for all children K-12. Creating a cross-grade list of expectations K-12 can be challenging because students come to school from a variety of racial and cultural backgrounds that span countless childhood experiences.

Adverse Childhood Experiences

Many students come to school affected by trauma and maltreatment due to adverse experiences at home and/or in the community. As a result, the classroom climate has shifted and student struggle with self-regulation has increased over the last 20 years (Doll & Lyon, 1998; Felitti et al., 1998; Swartz, 2017). The Center for Disease Control (CDC, 2014) defined maltreatment through four categories: physical abuse (e.g., hitting, shaking); sexual abuse (e.g., exposing a child to pornography, fondling, sexual penetration); emotional abuse (e.g., name calling, rejection, threatening); and neglect (i.e., inability to meet a child's basic emotional or physical needs [e.g., food, clothing, shelter]). In partnership with Kaiser Permanente (a healthcare organization) and the CDC, Felitti et al. (1998) conducted a survey of 13,494 adult Kaiser members who were seen at the *Health Appraisal Clinic* during two separate timeframes (August to November of 1995 and January to March of 1996). Felitti et al. (1998) used two categories to define adverse childhood

experiences (*abuse and household dysfunction*) and further categorized by type (see Table 1).

Table 1

Categories of Childhood Exposure

Abuse	Household Dysfunction
Psychological	Substance abuse
Physical	Mental illness
Sexual	Mother treated violently
	Criminal behavior in the household

Note. Adapted from "Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE)," by Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., & Marks, J. S., 1998, *American Journal of Preventive Medicine*, *14(4)*, 245-258.

Felitti et al. (1998) was investigating the connection between the type and number of exposures to abuse in order to understand impact on long-term health risks as adults. Felitti defined adverse childhood experiences (ACEs) as a range of very basic levels of neglect to extreme cases of sexual and physical abuse and has become a widespread societal problem (Plumb, Bush, & Kersevich, 2016; Thompson, Hannan & Miron, 2014). A single point was issued for each category (exposure to adversity) on the survey and the sum was reported as the respondents' adverse childhood experiences or ACE score. Felitti found the higher the number of exposures, the greater potential for developing risky behaviors (smoking, obesity, alcoholism, or disease conditions [e.g., diabetes, emphysema, hepatitis]) as an adult. The data revealed 52% of the respondents had experienced more than one ACE category during their childhood and 6% self-reported four or more experiences. Felitti's study demonstrated a need for change in society to improve environments for individuals

and families. Although, societal change is complex and takes time, schools can help to initiate this change, as they have a unique opportunity to provide "predictable, moderate, and controlled" environments for all students, especially those impacted by ACEs (Plumb et al., 2016, p. 38). Further, specific instruction and guidance around emotion and responsible decision making may further reduce tensions for students and classrooms impacted by ACEs (Doll & Lyon, 1998; Morgan et al., 2015).

Several challenges to addressing ACEs in the classroom exist. First, the classroom climate can be compromised when children impacted by ACEs are unable to manage emotions, appear to be unfocused or hyperactive, and struggle to engage appropriately with peers. Second, teachers may be unaware that unfocused off-task behavior and struggle with self-regulation or simple problem solving tasks are typical responses to ACEs. Avoidance, frustration, and acting out are all well documented childhood responses to trauma (Baum, 2005; Plumb et al., 2016). The daily demands and rapid pacing of the typical classroom are often difficult for students impacted by ACEs effect their ability to complete tasks, follow directions, or engage in appropriate social interactions. Additionally, without adequate intervention, ACEs may also interfere with students' personal sense of safety, increased feelings of fear, helplessness, and sense of self-worth (Baum, 2005, Felitti et al., 1998; Skalski & Smith, 2006). Therefore, teachers need universal tools and training that supports students social-emotional competency (Baum, 2005; Felitti et al., 1998; Plumb et al., 2016; Skalski & Smith, 2006). Unfortunately, due to limited resources, insufficient community or school-based interventions available, and the number of students impacted by ACEs staff and students often struggle to meet current needs (Cooper &

Cefai, 2013; Greene, 2009; Plumb et al., 2016). The gravity of the situation is clear. Without supportive adults and effective intervention, prolonged and persistent exposure to trauma negatively affects brain development and long-term cognitive processing abilities (Felitti et al., 1998; Plumb et al., 2016; Thompson et al., 2014). It is important to remember individual responses to ACEs are often outside of the child's control. Therefore, nurturing, guidance, explicit instruction, and support from caring adults is one way to enhance social-emotional competence and better support daily stressors for students (Benard, 2004; Plumb et al., 2016).

In 2010, Child Protective Services reported 695,000 children were victims of maltreatment (i.e., adverse childhood experiences) and nearly 1,600 died as a result of their injuries. For these reasons, policy makers have looked to schools to provide structured social-emotional instruction for students across the country. It is commonly believed that schools are supportive environments where students can learn how to interrupt ACES, reframe their thinking, and begin to develop resiliency skills. Thompson et al. (2014) warns, without adequate structure and explicit support, students who have experienced continuous maltreatment in unstable and unpredictable environments, may get stuck in emotional dysregulation further exacerbating lifelong consequences. Researchers have found, when schools provide intentional behavioral and emotional support for students via school-wide interventions, wellness and resiliency among the students' increases (Baum, 2005; Cook et al., 2015; Crooks, Scott, Wolfe, Chiodo, & Killip, 2007; Taylor et al., 2017).

Cevasco, Rossen, and Hull from the National Education Association (2017) proposed a series of SEL best practices to support students exposed to ACEs (a)

provide predictable structure for the students; (b) help students understand available support systems; (c) validate their experiences; (d) identify triggers for at-risk behavior; (e) check in daily to build relationships; (f) provide explicit instruction for problem solving; and (g) monitor attendance on a consistent basis. They contend these best practices are realized through integrating SEL into the curriculum.

Multi-Tiered Systems of Support

Social-emotional learning curriculum intended for universal implementation is considered a Tier 1 effort within multi-tiered systems of support (MTSS). Multi-tiered systems of support are scientifically-validated, evidence-based frameworks that follow a consistent, comprehensive, and structured design to meet the needs of all students academically, socially, and behaviorally (Benner et al., 2013; Cook et al., 2015; Moretti, 2010; Schwartz, 2016). Effective MTSS include tiered intervention that is predictable, consistent, and contains embedded protocols, procedures, and motivators school-wide (Benner et al., 2013; Cowen, 1994). Tier 1 includes core instruction and systemic protocols that are designed to address the needs of all students' system-wide. Tier 2 efforts are designed to meet the needs of students just below or at-risk of being below grade level or struggling to meet behavior expectations. Finally, Tier 3 efforts are specially designed targeted interventions for students who may be lacking the foundational skills necessary to meet desired academic or behavioral outcomes by grade-level (Horner & Sugai, 2015). The three tiers in a MTSS scaffold interventions for all learners. However, accurate identification of student need is a critical component. Identification includes screening and diagnostic assessments coupled with effective instructional and classroom management practices. Together skill

deficits (academic or behavioral) can be addressed in order to avoid escalated negative outcomes over time (Alfano & Beidel, 2014; Benner et al., 2013; Positive Behavior Intervention Support, 2017).

Positive Behavior Intervention Support (PBIS) is one example of an MTSS used to address student academic and social behavior needs (Sugai & Simonsen, 2012). Table 2 defines and describes the PBIS framework implemented in more than 21,000 schools over the last 20 years (Horner & Sugai, 2015). The premise of PBIS assumes the environment is predictable (i.e., uses and develops a common language and has clearly communicated expectations), safe (e.g., universal understanding that violence and disruptive behavior is not tolerated), and consistent (i.e., all adults hold students to the same behavior standard; Benner et al., 2013). The PBIS framework encourages schools to develop three to five core behavior expectations which become the foundation for all systemic protocols and the lens for delivering instruction school-wide. Tier 1 efforts such as (e.g., teaching of expectations, instructional strategies for increasing engagement, and behavior management [e.g., non-verbal cues, think time, reteach]) must be in place to reap the greatest benefit (Benner et al., 2013; Cook et al., 2015; PBIS, 2017).

Table 2

Positive Behavior Intervention and Support

Tier	Level	Target
1	Universal	Directed toward all students. Should utilize a core set of strategies and regular screening to identify students who need more support.
2	Targeted	Directed toward students who may demonstrate behavior to demands (e.g., disengagement, absenteeism, moderate refusal) in the classroom.
3	Intensive	Directed toward students with complex or severe problems (e.g., chronic absenteeism, drug abuse, violence to self or others).

Note. Adapted from Alfano and Beidel (2014).

Social and Emotional Learning

The working definition of social-emotional learning for the purpose of this study is defined as: The process of acquiring the ability to recognize and manage emotions, set and achieve positive goals, appreciate the perspective of others, establish and maintain positive relationships, make responsible decisions, and handle relationship challenges constructively (Elias et al., 1997). Each facet of SEL is embodied in five distinct, yet intertwined competencies as defined by the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2017):

- Self-awareness: Recognizing one's own inner-strength and ability
- Self-management: Impulse control and self-regulation skills
- Social-awareness: Embracing empathy and the perspective of others
- Relationship skills: Teamwork and collaborative processes
- Responsible decision-making: Problem solving quickly, effectively, and with ethical values

Research suggests effective SEL instruction, using CASEL's (2017) core competencies, increases social-emotional awareness, elevates academic performance,

reduces impulsive maladaptive behaviors, and increases students' abilities to make pro-active, positive decisions (Durlak et al., 2011; Jones & Doolittle, 2017). In general, SEL programs have shown they have the capacity to increase students' emotional awareness, create empathic relationships, and healthy problem solving skills (Cooper & Cefai, 2013; Felitti et al., 1998). Scholars suggest, as students' mental and social well-being improve, so does their ability to fulfill responsibilities and contributions at home, in school, or in the workplace (Benner et al., 2013; Durlak et al., 2011; Elias et al., 1997).

Durlak et al. (2011) conducted a meta-analysis of 213 Kindergarten through twelfth grade SEL programs designed to increase social-emotional competency of students. Durlak found, patterns in programming indicated students who received explicit SEL instruction, taught by their regular classroom teacher, experienced greater academic gains (11 to 17%) than those who did not. Additionally, SEL programs were particularly effective when they were embedded in MTSS and consistent screening, progress monitoring, and intervention protocols were taking place (Cowen, 1994).

Strong Kids Series

In 2001, A student-faculty research team was created at the University of Oregon in order to address preventative approaches in the field of SEL (Merrell, 2010). The *Oregon Resiliency Project* (ORP) was born out of Merrell's desire to promote "research, training, and outreach efforts...in schools" and "to support Ph.D. students as they propose(d) and conduct(ed) dissertation research" (p. 57). The *Strong Kids* (2009) social and emotional learning series was the product of this work. The

team's original commitment to SEL research and development has continued, even after Merrell lost his battle with cancer in 2011. *The Strong* Kids authors have worked for 15 years to ensure their program provided a "critical pathway" for "optimal effectiveness and impact" of a school's SEL program (Whitcomb & Parisi Damico, 2016, p. 6).

Carrizales-Engelmann, Feuerborn, Gueldner, and Tran (2016) have co-authored the of *Strong Kids* series (grades Pre-K to 12) since it's conception and are focused on skill-based SEL instruction aimed at addressing the needs of children who are "high functioning, typically developing, at-risk for social-emotional problems, or struggling with social-emotional difficulties" (p. 3). The authors offer five specifically designed manuals grouped into grade-level bands intended to meet the varying social-emotional needs of students: Pre-kindergarten (*Strong Start*), Kindergarten through Grade 2 (*Strong Start*), grades 3 to 5 (*Strong Kids*), grades 6 to 8 (*Strong Kids*) as well as *Strong Teens* for high-school students in grades 9 to 12. The program's focus on mental health prevention and early intervention allows for flexibility of use in both general and special education classrooms (e.g., Kramer, 2013; Merrell, Juskelis, Tran, & Buchanan, 2008) as well as small group counseling and residential treatment settings (e.g., Berry-Krazmein & Torres-Fernandez, 2007; Castro-Olivo, 2014; White & Rayle, 2007). The diversity in setting and targeted population is important to note as SEL studies have shown that curriculum that is easy to facilitate is one way to increase program fidelity throughout the implementation process (Cooper & Cefai, 2013; Greenberg et al., 2003). With educators in mind, the authors' comprehensive, easy to prepare, semi-scripted program allows for straightforward implementation and

facilitation at universal, targeted, and intensive levels (Carrizales-Engelmann et al., 2016). In addition, Caldarella, Christensen, Kramer, and Kronmiller (2009) assert, *Strong Kids* is one of very few SEL curriculums to support students in the primary grades (K to 2) and the *Strong Kids* program intentionally integrates conceptual and behavioral mastery approaches to learning (Carrizales-Engelmann et al., 2016). Throughout the curriculum, students are provided opportunities to internally reflect on self-management by identifying emotions in themselves and others. Aligned with current cooperative-learning best-practices presented by the NEA (2017), concrete examples and model vignettes throughout the program allow students to practice emotional identification, anger management, stress management, and goal-setting individually, in small groups, and as a class (Carrizales-Engelmann et al., 2016). Individual lessons present students with opportunities to increase prosocial behaviors and decrease external challenges with self-regulation, impulsivity, and aggression (Cooper & Cefai, 2013; Skalski & Smith, 2006).

Even though there have been increased demands at the local level for providing culturally and socially relevant SEL curriculum at all grade levels for more than a decade, research (specifically on *Strong Kids*) has been lacking in this area. Only six of 32 *Strong Kids* studies to date were conducted outside of White, middle-class schools; four at the high school level (Castro-Olivio, 2014; Merrell et al., 2008; Ross, 2012; White & Rayle, 2007), one at Pre-kindergarten (Gunter, Caldarella, Korth, & Young, 2012), and one at the elementary school level (Kramer, 2013). The current research will expand the *Strong Kids* work by conducting a control-group evaluation of *Strong Kids* (2nd ed.) utilized as a school-wide, Tier 1, SEL curricular tool.

Participants were from a demographically diverse community of elementary-aged students (grades K to 6) and the researcher was unaffiliated with Merrell (2010) or any researchers connected to the *Oregon Resiliency Project*.

Purpose of the Research

The purpose of this quasi-experimental study was to determine (a) the effect of the *Strong Kids* (2016) social and emotional learning curriculum on students' social-emotional knowledge; (b) if participation in *Strong Kids* decreased internalizing and externalizing behaviors as reported by their classroom teacher; and to understand (c) if teachers who implemented the curriculum viewed *Strong Kids* as a valid tool for delivering social-emotional instruction.

The *Strong Kids* curriculum was chosen as the SEL curriculum for this study for a variety of reasons. As indicated throughout SEL research, one of the most critical elements to effectively evaluating program implementation is the ability to examine the curriculum in a control group environment. To date, only 12 of the previous *Strong Kids* investigations were conducted using a control model (e.g., Bruni, 2015; Faust, 2006; Feuerborn, 2004) and fewer (i.e., Gueldner, 2007; Harlacher & Merrell, 2010; Kramer, 2013) were taught by classroom teachers as suggested by Durlak et al. (2011). A relatively large school-wide sample (Treatment, n = 399; Control, n = 492) of participants were chosen to participate in this work. A school-wide, universal implementation of *Strong Kids* was only found in Kramer (2013) and additional research was needed with school-wide samples in order to increase generalizability across systems for the *Strong Kids* program. After an evaluation of all previous *Strong Kids* studies to date, it was noted that the combined average

percentage of dominant-culture, White student participants was 92%, leaving room for further exploration of program impact on both culturally and economically diverse communities as is the case with the current investigation. The schools chosen for this study were in a widely diverse, high-poverty community. At the treatment school 53% of student participants were White compared with 60% at the control. All previous *Strong Kids* research was conducted using the first edition of *Strong Kids* (initially released in 2009). The *Strong Kids* (2nd ed.) was released in 2016 by Carrizales-Engelmann et al. and was selected as the treatment variable for this work. The newest edition was adapted to more closely match the CASEL (2017) social-emotional learning framework and provided a direct response to social validity outcomes from previous *Strong Kids* research (Fewkes, 2017; Gueldner & Feuerborn, 2016; Tran, 2007). The adjustments (e.g., shortening scripts, increasing opportunities to practice) were made in order to increase the ease of facilitation and overall understanding in classroom settings (Whitcomb & Parisi Damico, 2016). Several new lesson components were also added to the program (a) running short on time; (b) instructor reflection; (c) optional focus activities; (d) extension activities; and (e) fidelity checklists. The hope was, these additions would support teacher facilitation of the program, increase social validity, and lead toward greater fidelity in implementation as described by Durlak et al. (2016). Finally, focus and extension activities were added as a result of new mindfulness research suggesting students' "working memory, attention, academic skills, social skills, emotional regulation, and self-esteem" increase through calming focus activities (Meiklejohn et al., 2012, p. 292).

Kramer (2013) also provided preliminary evidence that *Strong Kids* (1st ed.) had the capacity to be utilized as a universal intervention within the framework of PBIS. Kramer's findings, to be described later, coupled with the limited amount of supplemental curriculum or group meetings needed outside the *Strong Kids* program provided preliminary evidence for the use of *Strong Kids* as a school-wide intervention. In order to determine if the *Strong Kids* curriculum was an effective Tier 1 intervention within an economically and culturally diverse elementary school's pre-existing PBIS structure, this study was guided by the following research questions:

1. What is the effect of universal participation of *Strong Kids* (2nd ed.) on student knowledge of SEL content for elementary students and are there any differential effects by demographic subgroup (i.e., primary (K-2), intermediate (3-6), male and female, and those receiving English language and special education support)?
2. What is the effect of universal participation of *Strong Kids* (2nd ed.) on student social-emotional competency disaggregated by primary (K-2), intermediate (3-6), male and female, and those receiving English language and special education support? Specifically, do teacher ratings of students internalizing and/or externalizing behaviors decrease upon completion of the *Strong Kids* curriculum?
3. Do teachers who implemented the curriculum view *Strong Kids* as a valid tool for delivering effective social-emotional instruction?

Significance

Historically schools have experienced an ebb and flow of national, state, and local initiatives which impact educators' approaches to teaching and learning. With each initiative, districts decipher state and federal mandates and make plans for implementation with building leaders and teachers. No Child Left Behind (NCLB, 2002) was one such initiative that forced districts to make rigorous changes in order to meet federal accountability standards and budget declines (Klein, 2015). As personnel and nonessential programs depleted, class sizes increased and extended-day programs had to rely on grants (e.g., Title IV- 21st Century Learning Centers) to remain available for students. The goal of NCLB (2002) was to ensure all students were meeting academic benchmarks and to ensure the public that schools were producing citizens who would be competitive in the international marketplace. Legislators found, after 15 years of re-authorizations and waivers, a high percentage of schools were still unable to reach the rigorous outcomes. Teachers across the country were finding what the learner was able to do highly depended upon how effectively the child was able to demonstrate self-awareness, self-management, social awareness, relationship, and responsible decision making skills (CASEL, 2017). It was imperative that lawmakers expand the focus of academic agendas and allow room for schools to support the social-emotional needs of students as well (McKown, 2017).

While educators cannot protect children entirely from abuse, neglect, household dysfunction, or societal issues, they can provide overarching support for students academically, personally, and socially through systematic implementation of research-based, scientifically-validated SEL curriculum in their classrooms (Walker,

2016). As a result of this research study, administrators may be able to provide their teachers with a low-cost, high-impact, social-emotional curricular support that meets the needs of students regardless of background or socio-economic status. In addition, if the results of this research indicate a strong practical effect on learning students and teachers may be able to spend less time and energy managing maladaptive behaviors that are disruptive to the learning environment.

Summary

School districts across the nation have seen a dramatic increase in the number of students teachers are serving per class (Dee & Jacob, 2010). Teachers are being asked to provide differentiated instruction to meet students' diverse academic, cultural, and social-emotional needs regardless of class size or intervention resources available for teaching and learning (Dee & Jacob, 2010; Greenberg et al., 2003). Each student brings with them an array of experience and perspective that inform the way they view the world. Not all of these experiences are healthy and some require interventions that are outside the scope of the school's ability to serve (Felitti et al., 1998; Plumb et al., 2016). Abuse, neglect, and household dysfunction, while occurring outside of the school, impact students who are expected to learn at rates commensurate with their peers. Programs like SEL, that did not fit within current were severely reduced or eliminated altogether due to budget restraints and rigorous academic accountability guidelines. There are fewer mental health support services available across the country (Dee & Jacob, 2010). Although, many social-emotional learning programs exist for implementation in the classroom, schools often cannot afford time or financial resources implementing curricula that does not have proven

results in increasing academic achievement or creating better citizens (CASEL, 2017). A gap seems to remain for affordable SEL programming that will explicitly teach students to be socially competent, be able to solve problems, and to develop responsible decision making practices (Benard, 2004; Durlak et al., 2011; Greenberg et al., 2003). The *Strong Kids* SEL curriculum is one that has shown potential to serve as an appropriate universal support (Kramer, 2013). The current study intends to expand the research by utilizing the second edition of *Strong Kids* series (2016), significantly increasing the sample size through a school-wide control group model, and evaluating teacher reported social-emotional competency for students. Chapter 2 will explore social and emotional learning, emotional regulation in elementary schools, criteria for quality SEL programming and, a thorough review of previous *Strong Kids* curriculum. Chapter 3 will describe the methodology, participant selection process, data collection, and analysis protocols, limitations of the work, and my role as the researcher. Chapter 4 will discuss the data that were collected as a result of the study. Finally, Chapter 5 will provide conclusion of the findings.

Chapter 2: Literature Review

As a result of exposure to abuse, neglect, and household dysfunction throughout childhood, decades of research has been conducted to preserve and support the mental health and social relationships of youth (Doll & Lyon, 1998; Felitti et al., 1998; Plumb et al., 2016). The students attending neighborhood schools today come from diverse backgrounds, parenting styles, and community influences (Benard, 2004). The following chapter will present what the literature has to say about how social-emotional skill building through explicit classroom instruction can increase students' healthy long-term response to stressors and social challenges.

Abuse, neglect, and trauma are prominent layers of adversity experienced by more than 20 million children in the United States (Plumb et al., 2016). The purpose of this study was to determine: (a) the effect of the *Strong Kids* (2016) curriculum on students' social-emotional knowledge; (b) if participation in the treatment group decreased internalizing and externalizing behaviors as reported by their classroom teacher on the Student Risk Screening Scale for internalizing and externalizing behaviors (SRSS-IE12); and (c) if teachers who implemented the *Strong Kids* curriculum viewed it as an effective tool for delivering effective SEL instruction.

This literature review explored social-emotional learning from a theoretical perspective using Bandura's (1986) Reciprocal Determinism Theory and Bronfenbrenner's (2005) Bioecological Model combined with the practical application framework suggested by the Collaborative for Academic, Social, and Emotional Learning (2017) to understand how child development and environmental systems interact in order to enhance the whole child development. The chapter will conclude

with an example of SEL as it pertains to children and early mental health interventions through an analysis of *Strong Kids*, a social-emotional learning curriculum, as a viable option for supporting the social-emotional needs of students.

Theoretical Framework

Bronfenbrenner's (2005) Bioecological Model, Bandura's (1986) Reciprocal Determinism Theory, and the five core competencies outlined by CASEL (2017) collectively provide a comprehensive lens for understanding mental health of students within the school environment.

In order to fully understand how child development occurs, according to Bronfenbrenner (2005), one must first have a clear understanding of his or her environmental influences (e.g., home, school, community; Burns, Warmbold-Brann, & Zaslofsky, 2015). Bronfenbrenner (1986) believed by fully understanding the child's environment one could better understand how development occurs. He called this understanding Ecological Systems Theory (EST). His early work delineated a framework where influences acting on a child were broken down into five categories (microsystem, mesosystem, exosystem, macrosystem, chronosystem). Each system included a series of norms and values that influenced how a child interacted within each environment. Later, Bronfenbrenner (2005) expanded EST to include the interaction of the individual with other participants within each system (i.e., a child acting out in the classroom due to stressors happening at home). This addition combined with the earlier EST theory was now referred to as Bronfenbrenner's (2005) Process-Person-Context-Time (PPCT) model, also referred to as the Bioecological theory. For the remainder of this study I will refer to this as the Bioecological theory.

This model contains four components: (1) the process - interaction between each person within his or her environment over extended periods of time; (2) the person - including preexisting biological, cognitive, emotional, and behavioral characteristics; (3) the context - all systems influence wellness and development (most closely linked with EST); and (4) time - how past, present, and future interactions will influence the overall development of the child (Nelson & Lund, 2017). According to Bronfenbrenner, student-teacher interaction is one way of examining the PPCT process. Each time students and teachers interact, new knowledge is potentially formed. Whether positive or negative each new interaction can build on previous interactions and knowledge to aid in reframing students' world view. Wallace and Calhoun (2014) assessed reciprocal interactions between students and teachers around specific academic tasks through a PPCT lens. They found that student-teacher interactions provided concrete opportunities for delivering meaningful, culturally relevant feedback aligned with societal norms and social values. During these interactions, students cited projects that were meaning making and focused heavily on reciprocity as being the most impactful for their academic growth (Wallace & Calhoun, 2014, p. 962). Like Bronfenbrenner, Bandura (1986) also believed a reciprocal model of human development adds depth to understanding the development of self-regulatory behaviors.

Bandura's (1986) Reciprocal Determinism Model (also referred to as Triadic Reciprocal Causation) described how behaviors were developed through the ever-changing reciprocal interactions between the individual and their immediate environment. Similar to Bronfenbrenner (1986), in Bandura's (1986) model students

develop both self-regulatory behaviors and emotional wellness through reciprocal relationships, interaction, adaptation, and other environmental influences (e.g., knowledge, beliefs, and culture). Within the social structure of the classroom, students are only able to learn self-regulatory skills as they are able to identify emotions, build empathy, and make healthy decisions (e.g., letting go of stress, setting goals) as a results of explicit instruction of social-emotional concepts (Crick & Dodge, 1994; Plumb et al., 2016). Students, do not work in a vacuum of systems that are compartmentalized into neat boxes or structures. Events occurring outside of the school day add to the complexity for understanding behaviors that occur in the classroom. As an example, trauma, neglect, or household dysfunction (as defined by Felitti et al., 1998) often contribute negatively to a child's sense of belonging and purpose interrupting learning or the ability to develop healthy relationships.

In order to help children, interact with and respond to stressors, educators are asked to promote an alternative narrative to adversity, in part by fostering an environment where they feel safe to share thoughts, feelings, and struggles with their peers and adults. Researchers have found that concrete, explicit instruction of social-emotional learning concepts in the classroom is one way to further elevate students toward proactive, healthy choices as adults (Benard, 2004; CASEL, 2017; Crick & Dodge, 1994; Plumb et al., 2016). The Collaborative for Academic, Social, and Emotional Learning (CASEL) emerged in 1994 in order to establish social-emotional goals and practices to address mental health factors impeding childhood wellness and development. To date they are supporting more than 50 districts with guidance and implementation support of social-emotional learning concepts (Benner et al., 2013).

The five core competencies set forth by CASEL (2017) have increased the likelihood students' will experience academic success as they are able to demonstrate self-confidence, perseverance, and adequate problem solving skills (Ashdown & Bernard, 2012). Bandura (1997), Bronfenbrenner (2005), and the Collaborative for Academic, Social, and Emotional Learning (2017) each provide clear views on what is best to help individuals grow and develop. Considering the three in concert provides an even stronger framework for integrating theoretical concepts of student development and social and emotional learning into action. Table 3 provides one way to understand how Bandura (1997), Bronfenbrenner (2005) and CASEL (2017) could be fused in order to understand the interplay between environmental factors (i.e., ACEs) and social-emotional competency as a means for achieving long-term success both cognitively and behaviorally.

Table 3

Theoretical Framework

Bandura (1997)	Bronfenbrenner (2005)	CASEL (2017)	Skill Development
Personal	Person	Self	Self-awareness, self-management, social-awareness, relationship skills, responsible decision making
Environment	Context	Classroom	Increasing knowledge and instruction through a deeper understanding of self
		School	Interactions between student and multiple environments
		Home	Systems and expectations put on the student
Behavior	Process	Community	Intersectionality and process for decision making as a result of personal values, social, and cultural norms
	Time	Adulthood	Maintaining learned skills as an adult as a result of previous experiences (e.g., historical, generational) interactions in life.

Note. Adapted from Bandura's (1997) Reciprocal Determinism Model, Bronfenbrenner's (2005) Bioecological Theory, and CASEL's (2017) definition of Social and Emotional Learning.

The key to this combined framework is to put the theoretical constructs into a plan of action for the growing demands of accountability systems and measures. Bronfenbrenner (2005) would argue to be successful in any category individuals need to have healthy interactions within their various systems in order to make any meaningful change to their norms and values over time. Tudge et al. (2009) notes that not any one category defined in this framework carries more weight at any given time than another. Each is an individual process that overtime will help individuals identify

challenges and gather new knowledge, which can help them to eliminate stress, set goals for change, and in the end have healthier reciprocal relationships. One way to support positive prosocial behaviors today is through the intentional integration of practical, meaningful, and relevant social-emotional learning across grade levels (Arwood & Young, 2000). Over the last two decades, researchers have demonstrated significant evidence in support of systematic integration of SEL content as a core ingredient for greater student academic success (CASEL, 2017; Chodkiewicz & Boyle, 2017; Doll & Lyon, 1998; Durlak et al., 2011; Greenberg et al., 2003; Gueldner & Feuerborn, 2016).

Children's Social and Emotional Learning

> A third-grade boy sits slumped down in his chair, his hoodie pulled tightly over his head and his hands are trembling. A peer attempts to engage with him and he sharply yells, "Leave me alone." The peer tries again and the boy shouts, "I said, leave me alone or I'll take you out." The classroom teacher quickly approaches and he buries his head in his arms (3rd grade student).

The above scenario described an eight-year old boy in my third-grade classroom. What his peers were unable to see was the continuous internal struggle with the loss of his mother due to a drug overdose when he was only five years old. Two years later, he continued to struggle with peer and teacher relationships as he searched for ways to handle the daily pressures of school and his own internal struggle to make sense of the world around him (personal experience, 2015-2016 school year).

The basic tenets of SEL include: Enhancing emotional and psychological wellness, promoting positive social interaction, developing empathic relationships, and navigating daily stressors. Each component is specifically designed to help children expand social-emotional wellness and apply their knowledge in the face of adversity (Caldarella et al., 2009; CASEL, 2017; Payton et al., 2008; White & Rayle, 2007). Social and emotional learning has been promoted as a way to address a wide-range of skills to promote social-emotional competency (Carrizales-Engelmann et al., 2016; Harlacher & Merrell, 2010). Social and emotional learning means many different things to many different educators K-12. For the purpose of this research, the definition provided by the Collaborative for Academic, Social, and Emotional Learning (2017) was adopted. Social and emotional learning as it relates to this work was described as "the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions" (CASEL, 2017, What is SEL?). Numerous scholars have acknowledged and incorporated CASEL's (2017) five core competencies (self-awareness, self-management, social-awareness, relationship skills, and responsible decision making) for social-emotional development throughout their own investigations of SEL (e.g., Dusenbury, Weissberg, Goren, & Domitrovich, 2014; Merrell et al., 2008; Talvio, Lonka, Komulainen, Kuusela, & Lintunen, 2013). What their research suggested was the academic success largely depends upon a child's ability to interact within each of CASEL's (2017) five core competencies. What they found, was research-based

curricular tools and appropriate level of instruction will help young students to acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions; set and achieve positive goals; feel and show empathy for others; establish and maintain positive relationships; and make responsible decisions (Ashdown & Bernard, 2012).

Self-awareness. As a component of the CASEL (2017) framework, self-awareness is realized when an individual is able to confidently determine his or her own strengths, challenges and confidently makes positive choices when addressing adverse situations. Bandura (1986) suggested, how a student believes about him or herself (i.e., their self-efficacy) will elicit responses based on how they see themselves in each situation. Students with high levels of self-efficacy Bandura suggests, are able to master situations and produce positive outcomes. High levels of self-efficacy also led to higher personal motivation and greater cognitive engagement throughout their lifetime. Whereas a student with low self-efficacy may evaluate a challenging situation as too risky and determine failure as an unavoidable outcome. A student who chronically avoids, Bandura believed was often due to skill deficits in one or more areas as well.

In support of Bandura, Bronfenbrenner (2005) further articulated the ideas of self as a precursor to societal interaction. Initial engagement or lack-there-of, he asserted, could be explained by a student's perceived societal expectations created as a result of personal characteristics (e.g., age, skin color, male, female), resource characteristics (e.g., past experience, financial resources, access to healthy relationships), and force characteristics (e.g., motivation, persistence, temperament)

often beyond their control. The individual, according to Bronfenbrenner, is key element to changing one's own environment. It is believed by some researchers in the field of education that self-efficacy (as defined by Bandura) is the most critical source of emotional intelligence and is a significant life predictor (Bandura, 1997; Bronfenbrenner, 1986; Cikrikci & Odaci, 2016; Goleman, 1995; Tudge et al., 2016).

Self-management. Self-management includes the ability to adjust feelings, responses, and emotions to meet the needs of everyday interactions (Denham & Brown, 2010). In order to understand the role self-management plays in social-emotional competency one must look to Bandura's (1997) view of self-efficacy. How individuals feel about him or herself may effect outcomes from the various task demands. Self-management requires what Bandura refers to as generative capability; where cognitive, social, emotional, and behaviors work in tandem across settings. Bronfenbrenner (2005) refers to these traits as resource characteristics. Resource characteristics, he believed were not always noticeable and may be employed inconsistently dependent upon the type and duration of the demand (low, moderate, high) which is consistent with Bandura's (1997) thoughts regarding self-management, as being determined by ones' level of motivation, temperament, determination (force characteristics) and belief that he or she can accomplish the task. Further, resource and force characteristics are influenced in Bronfenbrenner's (2005) view, by looking at additional environmental factors (e.g., access to food, family, education) as well. Students who are successful at self-management typically are able to evaluate task demands, set goals, and pay attention for extended periods of time (Bandura, 1997; Denham & Brown, 2010; SCANS, 2000). Further, they are likely to demonstrate

control of their bodies (hands and feet to self) and respond calmly to adversity leading to greater prosocial and self-regulatory behaviors (Denham & Brown, 2010).

Social-awareness. Perspective taking, understanding the feelings of others, and valuing differences make up the key elements of social-awareness (CASEL, 2017; Denham & Brown, 2010). The skill of social-awareness can be challenging as it is embedded in socio-cultural environments which vary in "values, social practices, and opportunity structures" (Bandura, 1997, p. 31). Bandura, like Bronfenbrenner (1986), realized early on that interactions between people and their social environments were reciprocal in nature. In Bandura's Reciprocal Determinism Model people must be willing to adapt through the development of their own "beliefs and skills needed to manage aversive emotional effects" within various environments (p. 31). In this model, the environment, behavior, and the individual reciprocally influence each other. Social acceptability in a school is often determined by an individual school's climate and culture. School climate refers to the social interaction between peers and adults; as they directly influence the way students interact with one another. As a result of SEL instruction, students who increase social-emotional competency may begin to recognize and separate themselves from unhealthy relationships known as adaptive distancing (Benard, 2004). Optimally, as a result of SEL instruction in social-awareness individuals would be able to emotionally detach from unhealthy thoughts and feelings as one way to overcome ACEs (Plumb et al., 2016).

Relationship skills. Defined by CASEL (2017) as the ability to establish and maintain healthy relationships, relationship skills play a key role in the the development of peer-peer and teacher-student relationships. Bandura (1997) believes

schools must do everything they can to build the self-efficacy of students because it leads to academic success and positive peer-peer and student-teacher relationships as well. If a child is confident in his or her ability academically, he or she is typically more popular, is seen as polite, and works well in collaborative groups (Bandura, 1997; SCANS, 2000). Self and social awareness act as precursors to demonstrating positive prosocial relationships and responsible decision making skills. In elementary school, however, in order to manage relationships one must first manage themselves both emotionally and behaviorally (Daunic et al., 2013; Hagelskamp, Brackett, Rivers, & Salovey, 2013).

Responsible decision making. Responsible decision making is necessary for student emotional wellness and development (SCANS, 2000). If a student is a good problem solver, SCANS (2000) contributors assert they are able to recognize a problem exists and navigate a plan of action through to resolution that includes revision and progress monitoring as needed. CASEL (2017) adds, students who are responsible decision makers have deep concern for themselves and others. Therefore, they hold themselves and others to safe, according to ethical standards that are in line with social norms. Bandura (1997) indicated coexisting elements of self-efficacy and cognitive factors (i.e., response to stimuli) that occur as a result of decision making are contribute to positive outcomes in any environment. Bronfenbrenner (2005), further explained students interact with multiple environmental systems (e.g., home, school, playground) simultaneously and concurred with Bandura (1997) regarding the various influences (e.g., peers, teachers, administrators, and parents) which guide decisions throughout their lives. The intersectionality of Bandura, Bronfenbrenner, and CASEL

help to guide the influences of the individual and his/her reciprocal relationship within the environment. However, as a result of childhood challenges, such as ACEs, students require an interruption (such as direct SEL instruction) in order to support prosocial growth and development.

Early Mental Health Intervention

Early intervention and support for elementary aged students is not a new phenomenon. Developing competency in students has proven to be a complex challenge for 21st century schools (Durlak et al., 2011). As fast as national rates of poverty, divorce, and single parenthood have increased there has been an equal and opposite decrease in the nurturing development of children (Bear, Minke, Griffin, & Deemer, 1998; Catalano, Berglund, Ryan, Lonczaket, & Hawkins, 2004). Most schools strive to consistently promote emotional wellness by providing caring and supportive environments across the grade levels (Durlak et al., 2011). However, in a national sample of 148,189 sixth to twelfth graders, Durlak et al. (2011) found "29-45% of the students self-reported having necessary social competencies such as empathy, decision making, and conflict resolution skills" (p. 405). Schools may be able to provide the instruction and guidance students need by providing explicit social-emotional learning instruction with multiple opportunities to practice in a solutions focused environment (Rae, 2012). Both Felitti et al. (1998) and Greenberg et al. (2003) agree there is a need for this work and believe it begins with adopting a concrete curriculum designed to increase social-emotional competency for students in order to develop a more prosocial nation.

Emotional regulation in elementary school. The need for social-emotional instruction is a critical element for students attending public school. It is common educational practice to ask students to focus on tasks, complete work on time, get along with peers, and follow a series of systemic expectations that were not required of them before entering school (Denham & Brown, 2010). As a result of the any combination of school, home, or societal pressure, students may exhibit a number of internalizing (e.g., social withdrawal, anxiety, depression) and externalizing (e.g., shouting, bullying, impulsivity) behaviors (Eisenberg et al., 2001). In a study of children 5-8 years of age, Eisenberg et al. (2001) found students' regulatory behavior, as reported by teachers and parents, was highly linked to emotion (e.g., sadness, depression, and anger). However, if students were provided adequate instruction and opportunities to practice prosocial behaviors they could develop more controlled responses (Benard, 2004; Carrizales-Engelmann et al., 2016; Eisenberg et al., 2001). Unfortunately, school counseling sessions alone have yet to provide enough consistency, structure, and cultural accommodations to make lasting impacts for students social-emotional wellness due to inconsistencies of program implementation and a lack of fidelity throughout the process (Greenberg et al., 2003).

Resiliency. One of the challenges with SEL work is the counter-argument of the resiliency literature. Although there is not definitive agreement amongst researchers on the definition of resilience, it is frequently cited as the ability to persevere in the face of adversity (Benard, 2004; Catalano et al., 2004; Chodkiewicz & Boyle, 2017). Scholars agree, in order to demonstrate resiliency, students must also exhibit higher levels of social emotional competency. Students with high levels of

social emotional competency typically are positive, have excellent communication skills, demonstrate empathy (i.e., understanding alternative perspectives), and have compassion toward others (Benard, 2004). Findings from Werner and Smith's (2001) longitudinal study of risk and resilience suggested 50-80% of the at-risk population were able to overcome risk-factors that "transcends ethnic, social class, geographical, and historical boundaries" when working in a resiliency model (p. 8). Doll and Lyon (1998) would caution readers when considering these types of studies as they may have incredible political implications if resiliency research (i.e., understanding the development of prosocial behaviors in the face of adversity) is blindly accepted over intervention studies (i.e., understanding how groups interact as a results of intervention). If policymakers emphatically believe and solely view resilience as "a quality some people possess and others do not" then funding is likely to be reduced for SEL and other student support services that intend to build or enhance resilience (p. 9). Durlak et al. (2011) understood social-emotional skills associated with resilience were not innate and could be taught. Merrell et al. (2008) agreed with the work of Durlak et al. (2011) and began research and development around social-emotional learning to support students K-12.

Multi-tiered Systems of Support

Without a guide or a set of tools in place for addressing skill deficits in academic or behavioral needs, research suggests adults spend more of their time and attention on interventions and and techniques designed to modify disruptive behavior (Benner et al., 2013). Benner et al. (2013) recognized that instruction cannot occur unless behavior is under control and an average of 58% of instructional time is lost

due to problem behaviors in the classroom (Cook et al., 2015). Multi-tiered systems of support have proven to be an effective way of supporting students' behavior and academic needs and reducing the number disruptive behaviors schoolwide. Multi-tiered systems of support (MTSS) provide a systematic method for the prevention, reversal, and minimizing of mental health challenges through scaffolded evidence-based practices and progress monitoring for behavior and academics (Cook et al., 2015). An effective school-wide approach for supporting behavior and learning provides a framework for screening, monitoring, and intervention to meet mental health needs for all students (Cowen, 1994). Cowen (1994) believed that tiered supports increase outcomes for students and should include a strong core curriculum, a series of research-based interventions, and consistent modeling.

Sugai and Horner (2006) suggested the three-tiered framework of PBIS is designed to support students from preventative (i.e., universal, school-wide approaches) to strategic (small group, or one-on-one) intervention plans which, if administered with fidelity, have shown to reduce frequency and intensity of academic or behavioral challenges in educational settings. Sugai and Horner further contend that the PBIS framework, is one way of developing procedures that will produce meaningful changes in behavior. Positive Behavior Intervention Support is an evidence-based, scientifically validated framework of support that looks similar to the objective structures put forth in applied behavior analysis (ABA). Both PBIS and applied behavior analysis expand traditional behaviorist theories by comparing the observable relationship (thoughts and emotions) of behavior to the environment (Horner & Sugai, 2015). In 2008, "more than 7,500 schools were implementing PBIS

across the nation" (Bradshaw, Koth, Bevans, Ialongo, & Leaf, 2008, p. 492). Today there are more than 21,000 (Horner & Sugai, 2015). Research suggests within a PBIS framework that is implemented with fidelity, 80% of student needs will be met by the primary prevention efforts of the PBIS structure (Sugai & Horner, 2006). Primary prevention refers to Tier 1 or universal supports, include building-wide systems and protocols that are designed to teach positive behavior expectations across settings. At this level, students are often incentivized with rewards (e.g., tickets, coupons, extra recess, electronic parties) for meeting school-wide behavior expectations. Kohn (1993) strongly advocates against the overreliance on external rewards as "rewards do not create a lasting commitment," rather temporary behavior change that is likely to hinder long-term meaningful change (p. 2). The use of tickets, Lane et al. (2014) maintain is only one way to bring about meaningful and positive change in behavior for students and rewards are not the direct focus of the framework. Applied behavior analysis is important to consider, but according to Kohn (1993), with any external reward the excitement is temporary and it is likely the undesired behavior will occur again. The integration of a skill-based social-emotional learning curriculum makes sense in this model, because expected behaviors are explicitly taught across settings and there are many opportunities to interact with peers, adults, and the environment aligned with the work of Bronfenbrenner (2005) and Bandura (1997) outside the reliance on external rewards.

Universal Social-Emotional Learning Programs

In addition to academics, many families look to schools to support the growing social-emotional needs of their children. Many schools have struggled to determine

the best course of action to support these needs (Greenberg et al., 2003). After the release of two substantial meta-analysis reviews including more than 500 individual studies of SEL curriculum, CASEL (2017) and Durlak et al. (2011) confidently recommend the addition of universal SEL to core instruction (e.g., math, reading, writing, science). Their analysis determined when schools focus on social-emotional wellness in addition to the academic core, systemic benefits (i.e., school climate, prosocial relationships, and higher academic achievement) beyond individual emotional wellness and self-regulatory capabilities occur. This is important, as Caldarella et al. (2009) believed this is a pervasive problem due to their findings that "75-80% of the children with mental health problems do not receive the treatment they need" (p. 52). Coupled with Doll and Lyon's (1998) research on *Risk and Resilience*, the meta-analysis results of CASEL (2017), and Durlak et al. (2011), schools have been identified as the best place for SEL to be delivered as they are able to address daily challenges with larger student populations over extended periods of time to address student needs. There are countless examples of SEL curricula on the market today and each program has their own approach to addressing the diverse student needs for mental health interventions (Payton et al., 2000). However, gains experienced from SEL curriculum are largely dependent on skills the program seeks to address and direct alignment with the culture and demographics of the population being served.

CASEL (2017), Durlak et al. (2011), and Taylor et al. (2017) have collectively analyzed the effectiveness of 475 SEL curricular programs serving students in grades K-8. CASEL analyzed studies at the elementary level and Durlak examined programs

K-12. After a six-month post hoc data collection phase of the 213 school-based SEL programs, Durlak determined students universally demonstrated increased SEL skills and decreased internalizing and externalizing behaviors. Taylor et al. (2017) went one step further and analyzed the follow-up effects of 82 school-based, universal SEL programs serving more than 97,000 participants. Each school that followed a step-by-step curricular plan to develop specific skills, engaged students in active learning pedagogy (e.g., role play, interactive groups), devoted enough time to develop the targeted skills, and targeted specific SEL skill development were able to consistently demonstrate significant gains both personally (e.g., internalizing and externalizing) and academically (Durlak et al., 2011; Payton et al., 2008; Taylor et al., 2017). Academically, in Durlak, students receiving SEL instruction and were able to develop prosocial behaviors demonstrated an 11-17% increase when compared to their peers who did not receive SEL instruction. Harlacher and Merrell (2010) suggested affective education programs result in gains (ES range .69 to .85) and decreases in internalizing and externalizing behaviors. Durlak et al. (2011) agreed and added that SEL is an effective model to support social-emotional development overall.

Programming examples. It would make sense then that schools would want to choose a program that is applicable to their students and is accessible to both staff and students. The majority of highly effective programs follow CASEL's (2017) five core competencies as a framework for program development. Several of the elementary SEL programs are outlined below to illustrate varying approaches to SEL.

The Incredible Years. *The Incredible Years: Dinosaur Social Skills and Problem Solving* curriculum is a two-year, 128-lesson series for students' Pre-K to

Grade 3 (Webster-Stratton, Reid, & Stoolmiller, 2004). It is designed to be taught 2-3 times per week in two 15-20 minute sessions per day (Webster-Stratton et al., 2004). The curriculum covers topics in emotional competency, relationship skills, empathy, anger management, and how to be successful at school (Webster-Stratton et al., 2004). After each lesson is taught teachers are asked to look for ways to intentionally incorporate the concepts into their other curriculum and less structured time (e.g., lunch, recess, busses). Children then take home activity books to complete with their parents and parents are encouraged to participate in lessons throughout the year. Although researchers have reported increases in students social-emotional competency, they have received greater recognition for the parental training components that have been implemented world-wide (Webster-Stratton & Reid, 2004).

***MindUP*™.** *MindUP™,* is a 15-lesson, Pre-K to 8th grade program grounded in neuroscience, positive psychology, mindful awareness, and social-emotional learning (Maloney, Lawlor, Schonert-Reichl, & Whitehead, 2016; Schonert-Reichl, Roeser, & Maloney, 2016). Each lesson builds on the previous one and transitions students from internal (e.g., theoretical mind-based activities) to cognitive feelings (e.g., understanding the feelings of others). Each component is taught and then is reinforced throughout the school day.

***Collaborative and Proactive Solutions*.** Greene's (2016) *Collaborative and Proactive Solutions*, formerly *Collaborative Problem Solving (CPS)* "promotes a problem-solving partnership, engages kids in solving the problems that affect their lives, produces more effective, durable solutions, while simultaneously teaching

problem-solving skills" (p. 3). The program was created to help teachers and administrators recognize and acknowledge the perceived inconsistencies between students and adults and is designed to reduce maladaptive response to adverse trauma under the assumption "kids will do well if they can" vs. "kids will do well if they want to" (p. 10). Greene believed emotional skill deficits could be taught through a reciprocal relationship between student and teacher (Battistich, Schaps, Watson, Solomon, & Lewis, 2000; West, Day, Somers, & Baroni, 2014). Stormont, Reinke, Herman, & Lembke (2012) agreed this type of social-cognitive approach to learning could drastically change the way students think. Plumb et al. (2016) suggested this was due to the neurological development of the brain at the time of the intervention.

Strong Kids: A Social and Emotional Learning Curriculum. The *Strong Kids* series consists of a set of curriculum manuals that target youth mental health development at five levels: (a) *Strong Start* (Pre-K), (b) *Strong Start* (grades K to 2), (c) *Strong Kids* (grades 3 to 5), (d) *Strong Kids* (grades 6 to 8), and (e) *Strong Teens* (grades 9 to 12; Carrizales-Engelmann et al., 2016; Whitcomb & Parisi Damico, 2016). The first edition of the *Strong Kids* series was created in partnership with graduate students at the University of Oregon who participated in Merrell's (2010) *Oregon Resiliency Project* as a result of several alarming studies indicating a significant rise in students' mental health challenges without adequate resources to serve them (Durlak et al., 2011; Greenberg et al., 2003). Merrell et al. (2008) conducted several pilot studies in order to create purposeful programming for both students and educators.

Strong Start. *Strong Start* (grades K to 2) was intentionally designed to meet

the needs of students ages 5 to 8 and provide a foundation for overall school success (Whitcomb & Parisi Damico, 2016). As recommended by the authors, lessons were taught using children's literature and a friendly mascot named *Henry* throughout the curriculum. Each lesson was expected to take approximately 45 minutes to complete, but could be separated into multiple segments if necessary. The *Strong Kids* authors believe successful implementation is the key to an effective program and they provided support for teachers by suggesting initiative alignment, behavior management, modifications for diverse learners, and resource management among others in order to develop a *Strong Kids* community (Whitcomb & Parisi Damico, 2016). The *Strong Start* (grades K to 2) curricular plan follows the same tenets as all other *Strong Kids* material, but adjusts for younger students' developmental level is covered in ten lessons.

Strong Kids. *Strong Kids* 3 to 5 and 6 to 8 include 12-lessons designed to be taught in 60-80 minute segments (Appendix A). The time to teach lessons ranges from 30-90 minutes and it is encouraged by program authors to adapt the material to more closely meet the needs of students in individual classrooms. In the 2nd edition, Carrizales-Engelmann et al. (2016) provide explicit direction allowing adjustments due to time restraints (*Running Short on Time*).

Strong Kids research. The initial *Strong Kids* pilot occurred in a predominantly White (97%), middle-class (96%) neighborhood school with 120 general-education students in the fifth grade. Each of the 12 lessons were taught once per week in 45-minute sessions across five individual classrooms. A knowledge test was utilized to ascertain student growth in explicit SEL knowledge using a pretest-

posttest model of assessment. Differences in mean scores were evaluated using and paired samples *t*-test to determine variances in content knowledge. The students' pretest scores yielded a mean of 11.39 (*SD* = 2.82). The posttest, which occurred after lesson 12, produced a mean of 14.35 (*SD* = 3.47) demonstrating in a significant increase ($p < .001$) in emotional knowledge (Merrell et al., 2008).

The second pilot within the same study, included 65, White (100%), middle and working-class communities of seventh and eighth grade students from a public junior high school in the northern mid-west region of the United States (Merrell et al., 2008). Using the *Strong Kids* curriculum for grades 6 through 8, lessons were delivered one time per week over 12 weeks for 50 minutes each session. Lessons were taught by study skills teachers. During this investigation, Merrell et al. (2008) incorporated staff development for the teachers prior to program implementation with on-going support as needed throughout the study. The same pretest-posttest knowledge test and scoring model was used to determine SEL gains. The paired samples *t*-test revealed significant gains ($p < .01$) in content knowledge from pretest ($M = 12.46$, $SD = 2.68$) to posttest ($M = 11.14$, $SD = 4.68$), resulting in a small meaningful effect size (.35). Merrell et al. (2008) cited "significant and clinically relevant gains in social-emotional knowledge and decreases in negative social-emotional symptoms" as a result of participation in the study (p. 219).

The third *Strong Kids* pilot conducted by Merrell et al. (2008) occurred in a regional special-education high-school serving primarily Black (75%) students in grades 9 through 12. The *Strong Teens* (grades 9 to 12) was used during this investigation. Each of the 14 students in the study "qualified for Individualized

Education Plans (IEP) under the *Emotionally Disturbed* classification" (Merrell et al., 2008, p. 219). The students were attending the district's alternative high school due to the extreme nature of their emotional and behavioral needs. For this investigation, the high school special-education teacher was coached by a *Strong Kids* expert who worked in tandem with the teacher throughout the lessons. Due to the small number of participants ($N = 14$), a paired samples *t*-tests was unable to be used in the analysis due to sample size restraints and skewed distribution (i.e., students identified before the study as having emotional or behavioral problems; Merrell et al., 2008). For these reasons, the *Wilcoxon Signed Ranks,* parametric test for two related samples was used to measure results instead. The pretest ($M = 20.36$, $SD = 5.44$) and posttest ($M = 22.36$, $SD = 4.01$) data revealed a statistically significant interaction ($p < .001$) with a small effect ($ES = .42$), even with a much smaller sample size ($N = 14$). Following the pilot studies, Merrell et al. (2008) and his colleagues initiated a series of specific program and site based investigations that were conducted employing the curriculum as both universal and targeted interventions (see Table 4). At the time of this study, 32 previous studies had been conducted to fine tune the work initiated by the *Strong Kids* team (see Appendix B). Under half of the studies were conducted using experimental control-treatment designs. Each study demonstrated increases in student SEL knowledge as measured by the *Strong Kids* Knowledge Test. Only three studies found increases in self-reported social-emotional competence and resilience (Harlacher & Merrell, 2010; Kramer, Caldarella, Christensen, & Shatzer, 2010; Nakayama, 2008) and only one, Kramer (2013) included a school-wide sample with a more diverse population. In Castro-Olivo's work (2014), 40 Latino Immigrant

students were instructed using a translated version of the *Strong Kids* curriculum, *Jóvenes Fuertes*. Authors adapted the *Strong Teens* (grades 9 to 12) components to be more culturally appropriate for recent-immigrant Latino students. The goal was to support the academic and social-emotional skills for adapting to a mainstream American high school. Participants mean scores for the knowledge assessment increased more than 2.5 points between pre and post test with a large effect size (*ES* = .95). This is substantial because 85 percent of the participants had been in the United States less than two years. In another study utilizing the *Strong Teens* curriculum, Isava (2006) sought to evaluate the impact of the curriculum on chronic social-emotional and behavior problems in a 24-hour residential treatment facility as a component of mental health instruction. Whereas the results between pre and post tests were not statistically significant, but score variances (*M* = 1.57) were evident across the participants. The externalizing behavior rating scale revealed a medium effect size (*ES* = .42) between treatment and control groups. In White and Rayle's 2007 study the *Strong Teens* curriculum was modified (as in Castro-Olivo, 2014) to serve an African American adolescent male population in small group sessions at a high school. Specific modifications included, but were not limited to historical African American figures and intentional cultural norming activities.

Table 4

Previous Strong Kids Investigations

Curriculum	Grade Level	Description	Empirical Research
Strong Start	Pre-K	10-lessons, ECE	Felver, 2013; Gunter et al., 2012; Howard, 2014
Strong Start	K to 2	10-lessons, primary	Barker, 2015; Caldarella et al., 2009; Fewkes, 2017; Kramer et al., 2010; Kramer, 2013; Schwartz, 2016; Sicotte, 2012; Whitcomb, 2009
Strong Kids	3 to 5	12-lessons, intermediate	Bruni, 2015; Cook et al., 2015; Faust, 2006; Feuerborn, 2004a; Gueldner & Feuerborn, 2016a; Harlacher & Merrell, 2010; Kramer, 2013; Marchant et al., 2010; Merrell et al., 2008; Nakayama, 2008; Tran, 2007; Williams, 2015
Strong Kids	6 to 8	12-lessons, intermediate	Berry-Krazmein & Torres-Fernandez, 2007; Feuerborn, 2004b; Gueldner, 2007; Gueldner & Feuerborn, 2016b, Levitt, 2009; Merrell et al., 2008

Note. This table was generated as a result of and extensive search for *Strong Kids* SEL curriculum as of December, 2017. *Strong Teens* (grades 9 to12) were withheld as they were not applicable to the current study. All studies conducted using *Strong Kids* series (1st ed.).

Harlacher and Merrell (2010) believed *the Strong Kids* curriculum had the capacity to be used school-wide as a universal intervention within a tiered system of support (e.g., PBIS). Therefore, he examined a group of 106 third and fourth graders (54% girls, 46% boys) to see if the students would demonstrate better social-emotional functioning (as defined by CASEL, 2017) and be able to maintain those skills over time (Harlacher & Merrell, 2010). To test for social-emotional function, Harlacher and Merrell (2010) used a two-way mixed effects multivariate analyses of variance (MANOVA) with condition and time of assessment. The interaction between the variables was significant ($p < .01$). There were also a significant ($p < .01$) effect in

SEL Knowledge at the posttest and post hoc phase 6-months after the end of the last lesson. These results included moderate effect sizes (d = 0.73) between all groups.

The first edition of the *Strong Kids* social and emotional learning curriculum acted as the independent variable in a study by Kramer (2013). He presented a non-equivalent control group design at two suburban elementary schools in Utah (N = 614). At the treatment school (n = 348) the racial demographic included students from predominantly Hispanic (61%) and White (37%) communities and the demographics at the control school were similar, Hispanic (52%) and White (43%). Approximately 82% of students qualified for free and reduced lunch at each school. Kramer's (2013) goal was to determine if the *Strong Kids* (1st ed.) was effective for meeting the social-emotional needs of students in addition to teachers perceived social validity of the program. Using the School Social Behavior Scales-2 they found a statistically significant interaction (p = <.001). Students internalizing and externalizing behaviors were ranked using two behavior rating scales, Systematic Screening for Behavior Disorders and Student Risk Screening Scale, in order to validate teacher ratings of students internalizing and externalizing behaviors. Findings indicated noteworthy decreases ($p < .05$) in internalizing behaviors for at-risk students. Teachers rated their students moderately higher in social skills when compared with similar studies (Harlacher & Merrell, 2010; Kramer et al., 2010). Higher student ratings contributed to overall assumption of increased social-emotional competency and positive school climate.

The large sample size of Kramer's (2013) study provided further support in favor of *Strong Kids* being utilized as a universal curriculum school-wide. However,

although not mentioned as a limitation in the study, the work was conducted at a professional development school which frequently partners with researchers in the university. This could have altered study results as participants had previously worked with the university and the *Hawthorne* or *Observer Effect* (i.e., alternation of behavior as a result of being observed), and could have led to an unnatural increase in prosocial behaviors. Aside from this, the aforementioned results provided support for *Strong Kids* to be used as an effective universal curriculum.

The reviewed literature of the *Strong Kids* SEL curriculum has provided a substantial body of evidence in support of SEL across K-12 education (e.g., Kramer, 2013; Merrell et al., 2008; Tran, 2007; White & Rayle, 2007). Appendix B provides the findings for all studies found as a result of an extensive database search for *Strong Kids* programming as of January 1, 2018. Several studies demonstrated an increase in the knowledge about healthy and unhealthy ways to express feeling, thoughts, and behaviors without regard to setting or grade level (e.g., Merrell et al., 2008). The methods used to integrate *Strong Kids* work into the core curriculum has been very promising (Gunter et al., 2012; Sicotte, 2012; Whitcomb, 2009).

Summary

Bandura (1997), Bronfenbrenner (2005), and CASEL (2017) provide a compelling lens by which to view the development of self-regulatory behaviors in elementary-aged students. Without self-awareness and self-management capabilities, according to numerous scholars one is unable to fully develop the skills necessary to establish social-awareness, create peer relationships, and/or make responsible decisions (Daunic et al., 2013; Denham & Brown, 2010; Durlak et al. 2011; Taylor et

al, 2016). Social and emotional learning research has established a need for returning to more "holistic approaches for teaching and learning inclusive of the teacher role as carer (as defined by Noddings, 2005), academic facilitator, and guide," while actively pursuing relevant trauma-informed practices" is critical going forward (Morgan et al., 2015, p. 1040). Greene (2009), like Morgan et al. (2015) insisted the only way to support students, specifically those with adverse childhood experiences, is to create authentic relationships through compassion, empathy, and understanding.

The *Strong Kids* curriculum is a social-emotional curricular series designed to address the social-emotional needs of students across five grade-level bands (Carrizales-Engelmann et al., 2016; Whitcomb & Parisi Damico, 2016). For this investigation three of the curriculum manuals were used to guide instruction: *Strong Start* (K to 2); *Strong Kids* (3 to 5), and *Strong Kids* (6 to 8). Throughout the investigation all *Strong Kids* instructional materials will be referred to as *Strong Kids* and when necessary differentiated by grade-level [e.g., *Strong Kids* (3 to 5)]. *Strong Kids* is included a predictable scope and sequence (K to 6) as well as the number of developmentally appropriate lessons (10 Lessons [K to 2] and 12 lessons [3 to 6]) for elementary-aged students. Previous *Strong Kids* research has shown the program was able to reach students who were "typically developing, at-risk for developing social-emotional problems, and/or struggling with social-emotional difficulties" in a variety of settings (Carrizales-Engelmann et al., 2016, p. 3). This made it a reasonable choice for this investigation.

Chapter 3: Methodology

The purpose of this quasi-experimental study was to determine: (a) the effect of the *Strong Kids* (2016) curriculum on students' social-emotional knowledge; (b) if participation in the treatment group decreased internalizing and externalizing behavior ratings as reported by classroom teachers on the Student Risk Screening Scale; and (c) if teachers who implemented the curriculum view *Strong Kids* as a valid tool for delivering effective social-emotional instruction. In addition, for questions one and two a series of differential effects to be outlined in the research questions below. The following chapter will describe the research methods used to address this purpose and include the following sections (a) research question and hypotheses; (b) rationale for methodology; (c) participants and setting, (d) design and procedures; (e) instruments; (f) ethical considerations; (g) role of the research (h) data analysis; and (i) summary.

Research Questions and Hypotheses

This research was designed to investigate the effectiveness of *Strong Kids: A Social and Emotional Learning Curriculum* as an instructional tool for teaching social-emotional skills in grades K to 6, taught by classroom teachers within a pre-existing multi-tiered system of support (PBIS).

The study was guided by three research questions:

1. What is the effect of universal participation in *Strong Kids* (2nd ed.) on student knowledge of SEL content for elementary students and are there any differential effects by demographic subgroup (i.e., primary (K-2), intermediate (3-6), male, female, and those receiving English language and special education support)?

2. What is the effect of universal participation in *Strong Kids* (2nd ed.) on student social-emotional competency disaggregated by primary (K-2), intermediate (3-6), male, female, and those receiving English language and special education support? Specifically, do teacher ratings of students internalizing and/or externalizing behaviors decrease upon completion of the *Strong Kids* curriculum?

3. Do teachers who implemented the curriculum view *Strong Kids* as a valid tool for delivering effective social-emotional instruction?

If the program is determined to be effective, students would demonstrate increased knowledge of healthy social-emotional behaviors as evidenced by the *Strong Kids Knowledge Test* (grades 3 to 6) and realize a reduction in internalizing and externalizing problem symptoms using the Student Risk Screening Scale rating screener completed by their classroom teachers. Finally, teachers would rate the program as a valid tool for social-emotional instruction on the *Strong Kids* Rating Scale adapted from the Primary Intervention Rating Scale (Lane et al., 2009).

Rationale for Methodology

The current study was conducted using a quasi-experimental, pretest-posttest, non-equivalent, control group design. The lack of randomization in this study, as is true with many education studies, eliminated the ability for it to be considered a true experimental design. The participants in this study were chosen as a result of convenience sampling. The researcher was employed by the school district where the study took place, taught 5th grade at the treatment school. This was beneficial for this study because the researcher was able to provide control over program pacing, monitor

implementation more closely, and provide troubleshooting support as needed. The control school was chosen due to its similar demographics, current implementation level of PBIS, and close proximity to the treatment school. Permission was granted by the district, as well as principals at both treatment and control schools. One important safeguard for this program was to ensure the *Strong Kids* treatment was not competing with other SEL initiatives. Neither treatment nor control schools had implemented a formal social-emotional learning curriculum in the last 10 years although several of the staff at each school had previous experience teaching SEL at some point in their career. Both treatment and control schools relied solely upon counselor or administrative support (e.g., peer mediation, friendship groups, break schedules) for Tier 2 or Tier 3 intervention on an as needed basis. However, no other steps were taken to ensure similarities beyond utilizing the PBIS framework, location, and school demographics. *Strong Kids* was chosen as the SEL curriculum for this study for three reasons: The *Strong Kids* authors' research showing significant social-emotional competency outcomes, the ease of facilitation, and the low-cost of each curriculum manual. The screener (SRSS-IE12) and survey (SKRS) used in the study were chosen as a result of their continued success with curriculum based measures in multi-tiered systems across settings. This is important because cost and ease of facilitation often steer curricular decisions for districts on very limited budgets, even if the program is highly effective. Another reason the *Strong Kids* made sense for this study was that each grade-level band has a separate semi-scripted instruction manual (*Strong Start:* Pre-K*, Strong Start:* K to 2*, Strong Kids:* 3 to 5*, Strong Kids:* 6 to 8) making the work more manageable for teachers in the classroom. Finally, all participant handouts,

parent letters, and assessment material necessary for implementation are included within the manual and additional supplemental materials are available online.

Participants and Setting

The study was conducted during the 2017-2018 school year. There were 6,296 students served in 10 schools in the suburban, East County school district. The racial demographics of the surrounding community were 58% White, 25% Hispanic, 6% identified as two or more races, 5% Black, 4% Asian, 1% American Indian, and 1% Pacific Islander. The district was located in what the Oregon Census Bureau (2013) defined as a poverty hot spot. This meant the region had a high concentration of residents in poverty as well as families struggling with child welfare (24%), domestic violence (21%), alcohol and drug addiction (21%), and 12 % of residents had various special education or mental health needs at the time of the study.

Two schools were conveniently selected to participate (see Table 6). The treatment group consisted of 408 students and 16 teachers at the beginning of the 2017-2018 school year. After accounting for mortality and attrition rates 399 students remained as participants for the study. Of the 572 students available in the control group, after natural mortality rates and acknowledging two teachers who chose to opt out of the study, 492 student participants and 19 teachers remained. This was not of concern because the treatment school only employed two teachers at each grade level and at the control several grade levels had three teachers. The two teachers who elected not to participate were part of two distinct three-person grade-level teams. Teachers at the control school did not teach *Strong Kids* or receive any SEL training as a result of this study. However, 9 of the 21 teachers had previously taught social-

emotional learning programs in the past compared to one teacher at the treatment school.

Table 5

Demographics of Study Participants

Characteristic	School A (Treatment)	School B (Control)
Total population:	399	492
Grade level:		
K - 3rd	52%	59%
4th - 6th	48%	41%
Demographic by race:		
White	53%	60%
Asian	15%	11%
Hispanic/Latino	18%	16%
Two or more races	9%	7%
Black/African American	3%	3%
Pacific Islander	2%	2%
American Indian	0%	1%
Number of languages spoken:	17	20
Student support:		
English language	37%	31%
Special education	14%	10%
Economically disadvantaged	50%	44%
Mobility	12%	7%

Note. Adapted from Oregon School Report Card 2016-2017 school year.

Design and Procedures

All classroom teachers at the treatment school taught *Strong Kids* according to their corresponding grade level [*Strong Start*: Grades K to 2 (7 teachers); *Strong Kids*: Grades to 3 to 5 (7 teachers); and *Strong Kids*: Grades 6 to 8 (2 teachers)]. All teachers at both treatment and control schools rated students using the Student Risk Screening Scale (SRSS-IE12), and completed the *Strong Kids* Rating Scale (SKRS) as adapted from Lane et al. (2009). All intermediate students (grades 3 to 6) at each school (Treatment, $n = 246$; Control, $n = 246$) took the *Strong Kids* Knowledge Test included with the curriculum for grades 3 through 5. Within this district 6th graders are part of the elementary school model and the curriculum presented in the 6-8 manual is covered by the same assessment therefore all students took the same *Strong Kids* Knowledge Test. Both treatment and control schools utilized PBIS to support academic and social behavior outcomes prior to the current study. Additionally, they participated in school-wide character education classes delivered by the school counselor once per month for 25 minutes throughout the school year. Finally, counselors in each building led small group interventions for students in need of peer mediation or problem solving. PBIS defined the needs of the environment and *Strong Kids* provided the material for universal social-emotional instruction missing at this school.

Recruitment and training. At the back-to-school professional development, all treatment school teachers participated in several sessions in order to scaffold the roll-out of the *Strong Kids* instruction and assessment protocols. The first consisted of a one-hour professional development session introducing the *Strong Kids* material as

the vehicle for instructing social-emotional concepts school-wide. In order to avoid treatment interaction effects, teachers were instructed to use only the *Strong Kids* curriculum for social-emotional instruction during the study. Following this first session, the researcher distributed all hard-copy and electronic versions of the curriculum to all teachers. This included all lesson plan materials required to effectively implement the *Strong Kids* lessons (curriculum, children's literature, and supplemental materials). A modified version of this training was conducted at the control school where an overview of social-emotional learning was presented along with the study proposal. Consent for participation in the study was conducted at this training (Appendix C). A separate 30-minute professional development was conducted at both control and treatment schools in order to provide an overview of the *Strong Kids* Knowledge Test and SRSS-IE requirements for teachers. At this meeting teachers were provided an opportunity for questions and practice with the Student Risk Screening Scale. Week one of the study, during a 30-minute segment, at a regularly scheduled staff meeting, teachers were provided time to rate their students using the SRSS-IE screening tool (Appendix D) in both buildings. Beginning October 2, 2017 and continuing through mid-January of 2018, teachers at the treatment school provided social-emotional instruction using their assigned *Strong Kids* curriculum manuals. Each teacher was charged with implementing the curriculum in his/her own classroom. Table 7 provides an example of the *Strong Kids* program scope and sequence for grades 3 to 5. Lesson topics covered for primary students were similar, yet differentiated for specific topics and the 6th grade content was identical.

Table 6

Strong Kids Scope and Sequence for Grades 3 to 5

Lesson	Topic	Purpose
1	About *Strong Kids*	Introduction to the *Strong Kids* SEL curriculum, practicing behavior expectations, and begin to identify emotions
2	Understanding Your Emotions 1	Identify physical feelings that occur with emotions on a continuum from comfortable to uncomfortable
3	Understanding Your Emotions 2	Identify thoughts and feelings that occur with emotions, behaviors that communicate emotions, and recognize the way emotions are expressed
4	Understanding Other People's Emotions	Understand how others may be feeling, practice perspective taking, and practice empathic scenarios
5	Dealing with Anger	Understand anger, name and describe primary anger management skills, and apply anger management skills to situations
6	Clear Thinking 1	Understand the influence of thoughts on emotions and behaviors, internal thought awareness, and common thinking traps that affect behavior, thoughts, and emotions
7	Clear Thinking 2	Develop the ability to notice or observe thoughts, discriminate from healthy and less helpful thinking patterns
8	Solving People Problems	Learn ways to be aware of one's actions while maintaining a good attitude, distinguish between helpful and unhelpful decision-making strategies, identify and apply the steps of a problem-solving model to resolve conflicts
9	Letting Go of Stress	Understand different kinds of stress ways to proactively cope
10	Positive Living	Understand the value of positive choices
11	Creating Strong and SMART Goals	Goal setting and increasing positive activity as a way to a healthy life
12	Finishing up	A review of concepts and skills throughout the curriculum

Note. Adapted from Carrizales-Engelmann et al., 2016.

Materials. All program materials were provided for teachers in print as well as electronically. A copy of each lesson was uploaded into the districts intranet using the Google format as a PDF document to allow teachers greater access for the purpose of lesson planning on or off campus. The intermediate teachers (grades 3 to 6) requested classroom sets of all supplemental materials for each lesson. Therefore, the researcher copied and delivered all supplementary material for every intermediate classroom. Supplemental materials were download from the publisher using the web address and key-code provided with the purchase of the material. Lesson plans were copied (inline with current copyright laws) and uploaded in PDF format directly from the instruction manuals.

Pacing. Treatment pacing was controlled by delivering fidelity checklists weekly rather than providing them with the material at the start of the program (Appendix E). After delivery, an e-mail was sent to each teacher with a weekly lesson reminder, an electronic copy of the fidelity checklist, and offers of support in order to ease the pressures of program facilitation (Appendix F). This protocol occurred weekly. Following the weekly email, teachers taught the following lesson. Each lesson was intended to be taught in its entirety; however, teachers were afforded the freedom to follow the suggestions of Carrizales-Engelmann et al. (2016) when *Running Short on Time* (as described in the 2nd ed.). Each lesson followed a routine outline as modeled in the *Strong Kids* instruction manuals for all grade levels (see Table 7).

Table 7

Strong Kids Lesson Plan Template

Lesson Outline	Purpose
Social-Emotional Competency Areas	CASEL (2017) endorsed five key areas necessary in building SEL skills (self-awareness, self-management, social, awareness, relationship skills, and responsible decision making); skills categories are listed for each lesson
Purpose and Objectives	Describes the skills students will learn
Materials needed	Lists the materials needed for advance preparation
Running short on time?	Suggests an optional stopping point to segment the lesson
Instructor Reflection	Provides opportunity for instructors to reflect on the content of the lesson to increase knowledge and personalize the application
Review	Lists topics covered in the previous lesson
Introduction	Introduces the concepts for the lesson
Mindfulness-Based Focusing Activity	Helps students focus and prepare for the lesson
Key Terms and Definitions	Provides an introduction to any relevant vocabulary
Instructional Content and Practice Activities	Provides content and activities specialized to each lesson's theme
Putting It All Together	Reviews the key concepts practiced in the lesson
Closure	Provides a brief breathing and reflection activity

Note. Adapted from Carrizales-Engelmann et al., 2016

The study design (see Table 8) was selected and modeled after previous studies utilizing the *Strong Kids* curriculum (Feuerborn, 2004; Kramer, 2013). Timeframes for training, implementation and rollout were determined by the 2017-2018 school-calendar and SRSS-IE12 recommended guidelines for increasing validity of the behavior rating assessment.

Table 8

Study Design

Timeframe	Data	Treatment	Control
08-26-17	Teacher training, SEL Overview & Curriculum outline	x	x
09-13-17	Teacher training, Assessment	x	x
10-02-17	SRSS-IE12 (Pre)	x	x
	Strong Kids Knowledge Test (Pre)	x	x
	Treatment school began *Strong Kids* lessons	x	x
01/02/18	SRSS-IE12 (Post) treatment	x	
01/08/18	SRSS-IE12 (Post) control		x
01/10/18	*Strong Kids* Knowledge Test (Post)	x	x
01/18/18	*Strong Kids* Rating Scale (Post)	x	

Instruments

Instruments used in this study included the *Strong Kids* Knowledge Test (SKKT), Student Risk Screening Scale for Internalizing and Externalizing Behaviors (SRSS-IE12), and the *Strong Kids* Rating Scale (SKRS).

Strong Kids Knowledge Test. Commensurate with other *Strong Kids* investigations, content knowledge for students in grades 3 to 6 (n = 243, n = 246) was assessed using the *Strong Kids* Knowledge Test (e.g., Castro-Olivo, 2014; Faust, 2006; Kramer, 2013). Students at this grade level typically have "sufficient cognitive skills appropriate for this curriculum and could be assessed via the chosen instruments for measurement," and as a result can perform the test with minimal assistance (Feuerborn, 2004, p. 36). Therefore, the SKKT was given to third through sixth graders in a multiple-choice (20-question) Google format at both treatment and control

school (Appendix G). The first six items on the assessment were true or false questions. The remaining 14 questions sought to understand the students' level of social-emotional competency. Several primary teachers, in each school, found the electronic test to be challenging for their students. In these cases, the keyboard fluency necessary to enter the random link identifiers (e.g., pressing the shift key produces the symbol above a number) proved to be difficult for both younger students and those with developmental disabilities. Those teachers elected to take the paper-pencil version provided in the *Strong Kids* manual and return them to the researcher for scoring. Paper pencil tests were entered by a volunteer into the electronic test. Scores were electronically generated for the researcher and answer keys were not available to the volunteer. The test took approximately 30 minutes to administer in either format. Teacher discretion was used to determine if adjustments needed to be made during the test with regard to students' academic or behavioral needs. The electronic test was a duplication of the test provided in the curriculum, but delivered within the *Google Forms* application which allowed test questions to be presented in an undefined order, thereby reducing pretest-posttest interaction effects.

Due to (a) lack of availability of a research-based, scientifically-validated instrument designed to capture social-emotional understanding at the primary level and (b) limited adults available to administer the test, participants at the K to 2 level (Treatment, n = 153; Control, n = 249) were not evaluated using a knowledge test. A knowledge assessment for first graders (*Strong Start* content knowledge*)* was piloted in Whitcomb's study (2009). Whitcomb (2009) trained graduate students to test small groups of students in *Strong Start* (1st ed.) content. Although students scored well on

the assessment, a limitation, as Whitcomb (2009) determined, was the format may have been too simple for first grade students and further adaptation would be necessary to rule this out.

Student Risk Screening Scale. The Student Risk Screening Scale (SRSS-IE12; see Appendix D) created by Lane et al. (2012) was used to measure social emotional competency. For the remainder of this study the complete test for internalizing and externalizing behaviors will be referred to as the SRSS-IE12 or combined rating scale. The SRSS-IE12, a norm-referenced, no-cost, behavior-rating screening tool, designed to identify elementary-aged students who may be at-risk for developing antisocial behaviors and may require additional intervention support to demonstrate success in school, at home, or in the community (Lane et al., 2012). The SRSS-IE12 measures risk through a series of internalizing and externalizing behavior categories in order to identify students at-risk for developing anti-social behaviors (Lane et al., 2012). SRSS scores "have demonstrated internal consistency greater than .80 and test-retest stability" (Lane et al., 2012, p. 246). In the same study, Lane et al. (2012) found the SRSS to have predictive validity: "scores predicted year-end performance on reading skills, self-control skills, and office disciplinary referrals" (p. 246). A cumulative score of 0 to 3 indicated a student was at low-risk, 4 to 5 a moderate risk, and students scoring 14 to 36 points, as a result of teacher ratings across 12 categories using a 4-point Likert scale, were considered at-risk for developing anti-social tendencies (Lane et al., 2012). This is an important data point as Felitti et al. (1998) indicated one in four children exposed to adverse childhood experiences (ACEs) may lead to increased internalizing (e.g., depression, anxiety, withdrawal) and

externalizing (e.g., physical aggression, bullying, defiance) behaviors. Exposure to ACEs without screening or successful intervention in the general education setting develop emotional behavior disorders which often generate behavior challenges in the classroom (Lane et al., 2012). Students who are identified as at-risk have traditionally made greater knowledge gains as a result of specific social-emotional instruction and those students can be identified through the use of this tool (Caldarella et al., 2009; Kramer, 2013; Merrell, 2010). However, it is imperative the tool remain unchanged (not modified in any way) in order to be considered reliable and valid (Lane et al., 2012; MIBLSI, 2017). In a validation study of the SRSS scale, Lane et al. (2012) analyzed data collected at a rural (N = 982) and urban (N = 1,079) school district. In the rural district, they studied the reliability of the SRSS (item level data, internal consistency factor structure, and test-retest stability) over one academic year in three elementary schools. The assessment was given at three points during the year (fall, winter, and spring). Across the year, the internal consistency coefficient remained stable: the alpha coefficient was .83 in the fall, .84 in the winter, and .85 in the spring. For test-retest reliability the correlation coefficients ranged from .72 to .77 across the collection points and all were statistically significant ($p < .01$). Finally, the the SRSS demonstrated predictive validity end of year reading scores, self-control skills, and office disciplinary referrals (Lane et al., 2012). This tool allows practitioners in general education settings to determine, with some confidence, which students may be in need of additional social-emotional and behavioral support. The screening tool takes approximately 30 minutes to complete for all students in a single classroom.

Strong Kids Rating Scale. The third research question sought to determine if

teachers who implemented the *Strong Kids* curriculum viewed it as a socially valid tool for delivering social-emotional instruction. At the completion of the *Strong Kids* program, the teachers at the treatment school completed the *Strong Kids* Rating Scale (SKRS), adapted from the Primary Intervention Rating Scale, created by Lane et al. (2009), a survey specifically designed to gather and interpret results for universal program implementation in elementary schools (Appendix H). The original Primary Intervention Rating Scale (PIRS) was generated and adapted from Witt and Elliott's (1985) Intervention Rating Profile-15 (IRP-15). Lane et al.'s (2009) version was selected rather than the original, as the IRP-15 was originally designed to analyze targeted Tier 2 or Tier 3 interventions. The PIRS targets stakeholder views on Tier 1 intervention goals, procedures, and outcomes and thereby is a better fit for this study.

Additionally, the PIRS came with permissions for personalizing the survey to meet specific site-based program evaluation needs. Therefore, the PIRS was modified to match the needs of the *Strong Kids* program information. As teachers completed the final lesson of *Strong Kids*, they were sent the rating scale questionnaire to collect staff perceptions around the *Strong Kids* goals, procedures, and outcomes. Each teacher completed a series of 17 questions using a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). They were also provided four short-answer responses to further understand social validity as a result of this study. This information was used to inform future research and potential program limitations at the completion of the study.

Marchant et al. (2010) evaluated the relationship of treatment fidelity and teacher responses on a questionnaire specifically designed to get at social validity.

Significant positive correlations were found between treatment fidelity and responses to five questions on the questionnaire (1) The intervention made a positive impact within my school; (2) The school staff has buy-in; (3) I am satisfied with our school's universal/core procedures; (4) I am satisfied with our school's supplemental and intensive goals; (5) I am satisfied with our school's supplemental and intensive procedures. In short, Marchant et al. (2010) found the participants with greater treatment fidelity were happier with the school's goals and procedures and agreed the program had a positive impact. Increased social validity across programs as shown to improve program fidelity and is critical element to overall intervention success. Lane et al. (2009) found high social validity ratings for a school predicted the degree to which program implementation was carried out. This was especially important for this study as social validity for previously initiated interventions had been low due to a perceived lack of stakeholder voice in the process.

Ethical Considerations

Permissions to conduct the research study was secured from (1) the authors of the curriculum on July 5th, 2017; (2) the school district on July 13, 2017; and granted through the university Institutional Review Board (IRB) on August 18, 2017. Each student was assigned a code number to keep their identity confidential throughout the study. Prior to analyzing the data all individual numbers were extracted from the dataset.

Role of the Researcher

My desire to conduct this research was driven by my desire to meet the needs the students in my classroom, my school, and across the district. My role in this study

was one of a participant observer. I facilitated the implementation of the *Strong Kids* series with teachers. At both schools I proctored the gathering of SRSS-IE12 and provided instruction and follow up for collecting student assessment. I taught the *Strong Kids:* Grades 3 to 5 curriculum to my 5th grade students and participated in all teacher participant components of the study. I made sure to follow the same teacher protocols with my own class although I had access to all rating scales. I taught the program with fidelity and conducted all assessments electronically to avoid bias. With more than 10 years of experience in Title I schools working with students from highly diverse backgrounds, the researcher has observed drastic changes in levels of student social-emotional competence over time. School schedules, increased instructional minute requirements, and the lack of focus on the mental health needs of students all have played a role in student discipline data over time. It was my belief that if effective teaching tools, a student-centered relational pedagogy, and a consistent professional development program are in place to support teachers, students will increase their social-emotional competency, create closer relationships, and experience greater academic achievement (Caprara et al., 2000; Greenberg et al., 2003). A viable curriculum is said to be a necessary component for widespread, positive results in one's school (Merrell et al., 2008). Given the current climate of our nation over issues of abuse, neglect, and household dysfunction, frustration and fear can turn into anger and aggression if not addressed over time (Elias et al., 1997; Payton et al., 2000; Swartz, 2017; Weissberg & Greenberg, 1997). Although many colleagues and stakeholders in my career have felt it is not the school's' primary responsibility to instruct in the social realm, what I know, as a teacher for 10 years, is the more

accessible students are emotionally, the greater gains they can make academically (Crick & Dodge, 1994; Daunic et al., 2017). Implementation of the *Strong Kids* (2007) program is simply the first step in an on-going process. While working on student study teams and in my own classroom, I have often hypothesized about how to support those students who struggle to meet the demands of the school setting.

Data Analysis

This study utilized a pretest-posttest design in order to more adequately determine if there were any significant effects on students' knowledge. The independent variable for this study was *Strong Kids*. The dependent variables included student's knowledge of SEL concepts, as measured by *Strong Kids* Knowledge Test, and student internalizing and externalizing behaviors, as measured by teacher-report using the SRSS-IE12. Social validity was measured using the *Strong Kids* Rating Scale (SKRS) by the treatment school at the conclusion of the program. All tests of significance were calculated using parametric tests because the data represented a normal distribution, the data represent a Likert scale of measurement for both the SRSS-IE12 and SKRS and although randomization was not an element of this study, all students were members of intact groups (i.e., classrooms).

Descriptive statistics of the pretest and posttest SRSS-IE12 ratings conducted by the teachers of the treatment and control group were generated in terms of mean (*M*) and standard deviation (*SD*). The ANCOVAs are used to test the main and interaction effects of factors while controlling for the covariates. For both the SKKT and SRSS-IE12 analyses will be conducted to determine if there was an interaction effect whole group as well as several subgroup categories (primary and intermediate

grade levels, male, female, or students receiving English language or special education support). The independent samples *t*-test was used to determine whether the means of the treatment and control schools SRSS-IE12 were statistically significantly different at the time of the pretest (Mills & Gay, 2011). Independent Samples *t*-tests and analysis of covariance (ANCOVA) were conducted to explore differences in pretest-posttest change scores. ANCOVAs were used to disaggregate these effects by demographic categories (primary, intermediate, male, female, English learners, and students receiving special education support). The SRSS-IE12 scores were viewed as separate score of internalizing (7 ratings) and externalizing (5 ratings) behaviors as well as the cumulative score. Interpretations of the results were grounded in a combination of significance findings and effect sizes. Significant levels of $p < .05$ were used. The quantitative data analysis tool, SPSS version 25, was used to analyze data for this study.

Summary

At the conclusion of this study the researcher hoped to be able to provide adequate data and support in order to advise for the continuation of the *Strong Kids* SEL curriculum as a viable universal intervention for use within the School-Wide PBIS framework preexisting in both the treatment and control schools. The schools were located in a high poverty area, indicated on the Oregon Census Report (2013), it is important, not only for the schools, but for the community that the school provide effective ways of accessing social-emotional wellness for the 892 student participants within the study. The design of the study followed a pretest/posttest model and the tools chosen have proven to be reliable and valid across grade levels (Carrizales-

Engelmann, 2016; Lane et al., 2009; Lane et al., 2012). Although the schools were chosen out of convenience and the researcher was employed at the treatment school all protocols and screening techniques required by teacher participants were followed with fidelity by the researcher. The Statistical Package for the Social Sciences (SPSS) version 25 was used to determine statistical significance using descriptive statistics, independent and paired samples *t*-tests, and ANCOVAs in order to determine pretest/posttest interactions and effects for the various subpopulations of students.

Chapter 4: Results

This chapter includes a description of the analysis used to evaluate the data gathered in this study. Individual analyses are presented in the order of each research question. Initially, an independent samples *t*-test was used to determine whether a significant difference existed between the samples prior to implementation of the intervention. Paired samples *t*-tests were completed to determine overall effects from pretest to posttest. An analysis of a covariance (ANCOVA) was utilized to compare treatment groups. The data were examined between groups, and where appropriate, disaggregated by grade level band. For the remainder of this research, grade level band will be referred to as primary, when referring to students in grades K to 2 and intermediate, when referring to students in grades 3 to 6. In order to determine possible differential effects by subgroup, the data were further disaggregated by for primary and intermediate grade levels, male, female, and students receiving English language and special education supports. Differences in group means are presented for pretest and posttests on the *Strong Kids* Knowledge Test, Student Risk Screening Scale as well as the *Strong Kids* Rating Scale (SKRS) questionnaire to determine social validity.

Research Question 1: Effect of Strong Kids on Student Knowledge

The first research question investigated the effect of participation in *Strong Kids* on students' knowledge of healthy social-emotional behaviors. Students in grades 3 to 6 were assessed utilizing the *Strong Kids* Knowledge Test (SKKT) provided in the *Strong Kids* curriculum. The assessment included 20 questions. An independent samples *t*-test revealed no pre-existing group differences between

treatment and control groups. A paired samples *t*-test revealed a statistically significant change ($p < .01$) for all students regardless of group from pretest to posttest. An ANCOVA (see Table 9) was then performed to examine the differences between groups with regard to *Strong Kids* Knowledge Tests, revealing growth for both students receiving the *Strong Kids* treatment ($M = 1.21$) and students at the control school ($M = 1.36$).

Table 9

Between Group Means of Knowledge for Intermediate

		Pre		Post				
	n	*M*	*SD*	Post	*SD*	Change	*F*	*p*
Group							.17	.68
Treatment	246	13.72	3.28	14.93	3.19	1.21		
Control	243	13.23	4.05	14.59	3.30	1.36		

Note. $*p < .05$.

The data were then disaggregated using two-way ANCOVAs to explore the influence of the treatment for males, females, students receiving English language (ELL) and/or special education (SPED) support. No interaction effect was found for males, females, or students receiving special education support ($p > .05$). However, a statistically significant ($p < .05$) interaction was found for students receiving English language support indicating the treatment was beneficial for this subpopulation. It should be noted that there were fewer English language participants in the control ($n = 37$) than the treatment school ($n = 104$; see Table 10).

Table 10

Disaggregated Means of Knowledge for Intermediate

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	F^a	p^a
Gender							.05	.82
Treatment								
Male	114	13.29	3.04	14.68	3.15	1.39		
Female	132	14.10	3.44	15.14	3.22	1.04		
Control								
Male	118	13.04	4.42	14.41	3.36	1.37		
Female	125	13.42	3.67	14.77	3.24	1.35		
English Learners							5.44	.02*
Treatment								
ELL	104	12.96	3.23	14.37	3.26	1.41		
Non-ELL	142	14.28	3.21	15.33	3.09	1.05		
Control								
ELL	37	12.27	3.17	12.68	3.37	0.41		
Non-ELL	206	13.41	4.17	14.94	3.17	1.53		
Special Education							.15	.70
Treatment								
SPED	27	11.96	3.42	12.63	3.93	.67		
Non-SPED	219	13.94	3.20	15.21	2.97	1.26		
Control								
SPED	20	9.30	5.18	11.00	3.24	1.7		
Non-SPED	223	13.59	3.75	14.91	3.11	1.32		

Note. Test source, *Strong Kids Social and Emotional Learning Curriculum*, 2016. *$p < .05$. [a]These results denote interaction effects.

Research Question 2: Effect of Strong Kids on Social-Emotional Competence

The second question investigated the effect of participation in the *Strong Kids* social and emotional learning curriculum on students' social-emotional competence. The Student Risk Screening Scale (SRSS-IE12) for internalizing and externalizing behaviors was used to rate all participants (K to 6) at both the control (n = 492) and treatment (n = 399) schools. Data were explored considering the effects for combined behavior ratings (SRSS-IE12), externalizing behavior ratings (SRSS-E7), and internalizing behavior ratings (SRSS-I5) for all students in Kindergarten through Grade 6. Finally, differential effects were examined considering primary and intermediate grade levels, males, females, students receiving English language, and/or special education support.

Combined behavior ratings. The following section will discuss disaggregated results when considering internalizing and externalizing behaviors as a combined element to understand overall social-emotional competency as measured by the SRSS-IE12. The independent samples t-test revealed no significant difference by group at pretest ($p > .05$). A paired samples t-test revealed a statistically significant increase in mean scores ($p < .01$) for all students regardless of group from pretest to posttest. An ANCOVA (see Table 11) revealed a decrease in combined internalizing and externalizing behaviors for students receiving the *Strong Kids* treatment (M = -1.06) and students who did not receive the treatment (M = -.99). Although, the difference at the treatment school was slightly greater, no significant difference was found ($p > .05$). This may be due high amounts of variation in ratings (SD was greater

than 4.2 for both schools at pre and post) for both schools and may have impacted overall effect.

Table 11

Between Group Means of Combined Behavior Ratings for K-6

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Group							.89	.35
Treatment	399	3.87	4.22	2.81	4.39	-1.06		
Control	492	4.22	5.05	3.23	4.28	-.99		

Note. Test source, *Student Risk Screening Scale*, 2012. *$p < .05$.

Table 12 shows the data revealed from conducting an ANCOVA considering only primary and intermediate grade levels. The main effect was statistically significant ($p < .001$) for primary students combined behavior ratings at the treatment school ($M = -1.18$) when compared to those at the control ($M = -1.12$). Although intermediate students in the treatment group had slightly higher rates of change (Treatment, $M = -.99$; Control, $M = -.86$), the difference was not statistically significant ($p > .05$).

Table 12

Means of Combined Behavior Ratings for Primary and Intermediate

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Primary							10.55	< .001**
Treatment	153	2.80	3.46	1.62	2.50	-1.18		
Control	249	4.98	5.17	3.86	4.50	-1.12		
Intermediate							.73	.39
Treatment	246	4.54	4.90	3.55	5.10	-.99		
Control	243	3.43	4.82	2.57	3.97	-.86		

Note. Test source, *Student Risk Screening Scale*, 2012 **$p < .01$.

Table 13 illustrates between group disaggregated results of combined behavior ratings for all students K-6. The ANCOVAs revealed a decrease for combined internalizing and externalizing behavior ratings across all subgroups. There were no effects for males, females, or students receiving English Language or special education services ($p > .05$). Students who received either English language or special education support did experience slightly higher reduction in behavior ratings between groups, however, the difference was not statistically significant ($p > .05$). Students identified as English learners ($M = 2.48$, $SD = 3.82$) demonstrated greater increases than students not identified as English learners ($M = 3.02$, $SD = 4.71$) at the treatment school, but findings were also not significant ($p > .05$).

Table 13

Disaggregated Means of Combined Behavior Ratings for K-6

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Gender							.19	.67
Treatment								
Male	186	4.45	4.72	3.48	4.94	-.97		
Female	213	3.37	4.08	2.23	3.80	-1.14		
Control								
Male	249	5.20	5.40	4.21	4.92	-1.01		
Female	243	3.21	4.45	2.21	3.21	-1.00		
English Learners							.01	.97
Treatment								
ELL	157	3.57	4.10	2.48	3.82	-1.09		
Non-ELL	242	4.06	4.67	3.02	4.71	-1.04		
Control								
ELL	94	3.90	4.24	2.83	3.25	-.67		
Non-ELL	398	4.29	5.23	3.32	4.50	-.97		
Special Education							.36	.56
Treatment								
SPED	36	6.94	5.72	5.03	5.60	-1.91		
Non-SPED	363	3.56	4.20	2.60	4.20	-.96		
Control								
SPED	42	7.76	6.30	6.14	5.40	-1.62		
Non-SPED	450	3.88	4.80	2.60	4.20	-1.28		

Test source, *Student Risk Screening Scale*, 2012. *$p < .05$. [a]These results denote interaction effects.

Data were further disaggregated for effects within primary and intermediate grade levels (see Table 14). There were no effects for males, females, or students receiving special education services. However, students at the control school who were receiving English language support experienced a significant interaction effect ($p < .05$).

Table 14

Disaggregated Means of Combined Behavior Ratings for Primary

		Pre		Post				
	n	*M*	*SD*	*M*t	*SD*	Growth	*F*	*p*
Gender							1.21	.29
Treatment								
Male	72	3.54	3.80	2.28	2.93	-1.26		
Female	81	2.11	3.02	1.04	1.87	-.24		
Control								
Male	131	5.98	5.21	4.92	4.86	-1.06		
Female	118	3.87	4.90	2.69	3.71	-1.18		
English Learners							4.24	.04*
Treatment								
ELL	53	2.51	2.45	1.72	2.54	-.79		
Non-ELL	100	2.93	3.90	1.57	2.49	-1.36		
Control								
ELL	57	4.77	4.81	3.07	3.72	-1.70		
Non-ELL	192	5.05	5.23	4.10	4.67	-.95		
Special Education							5.28	.72
Treatment								
SPED	9	5.00	5.63	3.00	3.64	-2.00		
Non-SPED	144	2.65	3.26	1.53	2.40	-1.12		
Control								
SPED	22	9.05	5.73	7.18	3.61	-1.87		
Non-SPED	227	4.59	4.94	3.54	4.45	-1.05		

Note. Test source, *Student Risk Screening Scale*, 2012 *$p < .05$. [a]These results denote interaction effects.

Table 15 shows the disaggregated data for students at the intermediate level. The highest combined behavior ratings were experienced by male students (Treatment, $M = 4.24$; Control, $M = 3.43$) when compared to females (Treatment, $M = 2.95$; Control, $M = 2.58$) although no significant interaction effects were found. There were greater rates of change for special education students at the treatment school ($M = -1.89$) compared with the Control ($M = -1.35$), but these findings were also not significant ($p > .05$). It did appear that students receiving English language support experienced greater rates of change between groups as well, but the difference was only marginally significant ($p = .10$).

Table 15

Disaggregated Means of Combined Behavior Ratings for Intermediate

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Gender							.07	.79
Treatment								
Male	114	5.02	5.17	4.24	5.75	-.78		
Female	132	4.14	4.46	2.95	4.39	-1.19		
Control								
Male	118	4.33	5.45	3.43	4.90	-.90		
Female	125	2.58	3.40	1.76	2.58	-.82		
English Learners							2.63	.10
Treatment								
ELL	104	4.12	4.53	2.88	4.29	-1.24		
Non-ELL	142	4.86	5.00	4.04	5.58	-.82		
Control								
ELL	37	2.57	2.70	2.46	2.34	-.11		
Non-ELL	206	3.58	5.10	2.59	4.20	-.99		
Special Education							.13	.72
Treatment								
SPED	27	7.59	5.71	5.70	6.01	-1.89		
Non-SPED	219	4.17	4.56	3.28	4.92	-.89		
Control								
SPED	20	6.35	6.77	5.00	6.77	-1.35		
Non-SPED	223	3.17	4.53	2.35	3.56	-.82		

Note. Test source, *Student Risk Screening Scale*, 2012 *$p < .05$. [a]These results denote interaction effects.

Externalizing behaviors. The following section will provide the data revealed by ANCOVAs when considering students' externalizing (e.g., behavior problem, peer rejection, low academic achievement) behavior ratings from the SRSS-E7 (see Table 16). The independent samples *t*-test revealed statistically significant differences in externalizing behavior ratings at pretest ($p < .05$), therefore, the pretest was used as the covariate in order to account for these differences. There were no between group (grades K-6) treatment effects although the treatments school's posttest data revealed higher social-emotional competency ratings, the rate of change was higher at the control school *(*Treatment*, M* = -.40*;* Control*, M* = =.58). However, externalizing behavior ratings decreased for all students as revealed by a paired samples *t*-test, although between group findings were not significant.

Table 16

Between Group Means of Externalizing Behaviors for K-6

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Group							.03	.86
Treatment	399	2.32	3.12	1.92	3.05	-.40		
Control	492	2.78*	3.73	2.20	3.31	-.58		

Note. Test source, *Student Risk Screening Scale*, 2012 *$p < .05$. **$p < .01$.

The data for externalizing behaviors were further disaggregated using an ANCOVA to understand possible primary and intermediate effects (see Table 17). At both levels, a statistically significant effect was revealed for externalizing behavior ratings ($p < .05$). However, primary was statistically significant in favor of the *Strong Kids* treatment ($p < .01$) while the intermediate was statistically significant in favor of the control group ($p > .05$). It is likely that the opposite interactions between treatment

and control groups reduced the treatment effects overall when combined. It is worth noting that primary students at the treatment school had a much smaller standard deviation at both pretest (*SD* = 2.73) and posttest (*SD* = 1.99) compared with students at the control school at pretest (*SD* = 4.10) and posttest (*SD* = 3.71) indicating greater variability in social-emotional competency for students in the control.

Table 17

Between Group Means of Externalizing Behaviors for Primary and Intermediate

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Primary							6.48	.01**
Treatment	153	1.93	2.73	1.24	1.99	-.69		
Control	249	3.39	4.10	2.74	3.71	-.65		
Intermediate							4.76	.03*
Treatment	246	2.55	3.44	2.35	3.95	-.20		
Control	243	2.16	3.20	1.64	2.76	-.52		

Note. Test source, *Student Risk Screening Scale*, 2012 *$p < .05$. **$p < .01$.

Table 18 shows the disaggregated data for students' externalizing behaviors for all grade levels K to 6. No significant differences were found for males, females, or students receiving English language or special education support on externalizing behavior ratings. In fact, although non-significant, the control school ratings showed a greater rate of change for all subgroups school-wide.

Table 18

Disaggregated Means of Externalizing Behaviors K-6

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Gender							.02	.88
Treatment								
Male	186	2.98	3.55	2.58	3.54	-.40		
Female	213	1.73	2.73	1.35	2.41	-.38		
Control								
Male	249	3.72	4.20	2.98	3.90	-.74		
Female	243	1.82	2.88	1.40	2.33	-.42		
English Learners							.49	.48
Treatment								
ELL	157	2.22	2.91	1.69	2.68	-.53		
Non-ELL	242	2.38	3.38	2.08	3.27	-.30		
Control								
ELL	94	2.79	3.48	2.17	2.71	-.62		
Non-ELL	398	2.78	3.79	2.21	3.45	-.57		
Special Education							1.01	.32
Treatment								
SPED	36	4.44	4.21	3.42	3.78	-1.02		
Non-SPED	363	2.10	3.01	1.78	2.94	-.32		
Control								
SPED	42	5.74	4.88	4.71	4.13	-1.96		
Non-SPED	450	2.51	3.49	1.96	3.14	-.55		

Note. Test source, *Student Risk Screening Scale*, 2012 *$p < .05$. [a]These results denote interaction effects.

Next, the externalizing data was analyzed by primary and intermediate grade levels. Primary students' ratings showed no significant effects when disaggregated by males, females, students receiving English language, and/or special education supports (see Table 19). Males had higher mean scores than females at both control (Male, M = 2.31, Female, M = 1.48) and treatment (Male, M = 4.19, Female, M = 2.73) schools for externalizing behaviors. As expected, the sample size for students receiving special education support was very small (Treatment, n = 9, Control, n = 22) and therefore the limited number of students may have skewed the results and limit the generalizability of the results.

There were also no effects for intermediate students' externalizing behavior ratings disaggregated by demographic for males, females, or students receiving special education services. It appears that students receiving English language support experienced greater rates of change between groups, favoring the treatment, but the difference was only marginally significant (p = .07). All students' externalizing behavior ratings decreased from pretest to posttest, but significance was not found and therefore the decrease was likely to have occurred by chance (see Table 20).

Table 19

Disaggregated Means of Externalizing Behaviors for Primary

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Gender							.27	.60
Treatment								
Male	72	2.56	3.00	1.82	2.31	-.74		
Female	81	1.38	2.35	.72	1.48	-.66		
Control								
Male	131	4.50	4.55	3.73	4.19	-.77		
Female	118	2.15	3.10	1.65	2.73	-.50		
English Learners							.77	.38
Treatment								
ELL	53	1.75	1.95	1.11	1.73	-.64		
Non-ELL	100	2.03	3.06	1.30	2.11	-.73		
Control								
ELL	57	3.37	3.99	2.40	3.16	-.97		
Non-ELL	192	3.39	4.14	2.84	3.86	-.55		
Special Education								
Treatment							1.33	.25
SPED	9	3.11	5.32	2.00	2.60	-1.11		
Non-SPED	144	1.86	2.50	1.19	1.94	-.67		
Control								
SPED	22	7.05	5.05	6.00	3.81	-1.05		
Non-SPED	227	3.03	3.82	2.43	3.55	-.6		

Note. Test source, *Student Risk Screening Scale*, 2012 *$p < .05$. [a]These results denote interaction effects.

Table 20

Disaggregated Means of Externalizing Behaviors for Intermediate

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Gender							.59	.44
Treatment								
Male	114	3.25	3.86	3.06	4.07	-.19		
Female	132	1,95	2.93	1.74	2.78	-.21		
Control								
Male	118	2.86	3.56	2.16	3.39	-.70		
Female	125	1.51	2.62	1.15	1.86	-.36		
English Learners								
Treatment							3.20	.07
ELL	104	2.45	3.28	1.98	3.02	-.47		
Non-ELL	142	2.63	3.57	2.63	3.79	.00		
Control								
ELL	37	1.89	2.30	1.81	1.79	-.08		
Non-ELL	206	2.21	3.33	1.61	2.90	-.60		
Special Education							.13	.72
Treatment								
SPED	27	4.89	3.78	3.89	4.02	-1.00		
Non-SPED	219	2.26	3.30	2.16	3.39	-.10		
Control								
SPED	20	4.30	4.35	3.30	4.09	-1.00		
Non-SPED	223	1.97	3.02	1.49	2.57	-.48		

Note. Test source, *Student Risk Screening Scale*, 2012 **p* < .05. [a]These results denote interaction effects.

Internalizing behaviors (SRSS-I5). The following section will provide the data revealed by an ANCOVA for students' internalizing (e.g., sad, depressed, anxious, lonely) behavior ratings as collected from the SRSS-I5 (see Table 21). The independent samples *t*-test was performed to examine pre-existing group differences between treatment and control groups. No significant ($p < .05$) pre-existing differences for internalizing behaviors were found. A paired samples *t*-test revealed students at both schools experienced a statistically significant ($p < .01$) decrease in internalizing behaviors from pretest to posttest. The ANCOVA revealed that this effect also seemed to be larger for students at the treatment school: at posttest a significant effect ($p < .05$) was discovered for students in grades K to 6, indicating the *Strong Kids* curriculum had a positive school-wide effect for all students school-wide (Treatment, $M = -.69$, Control, $M = -.44$) on internalizing behaviors for all students.

Table 21

Between Group Means of Internalizing Behaviors for K-6

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Group							4.15	.04*
Treatment	399	1.55	2.25	.86	1.95	-.69		
Control	492	1.47	2.27	1.03	1.84	-.44		

Note. Test source, *Student Risk Screening Scale*, 2012 *$p < .05$.

When disaggregating this data for primary and intermediate grade levels, a statistically significant effect for primary ($p < .01$) grades was revealed. One thing to note is the rate of change for primary students was identical (-.48) for both sites, but the there were nearly 100 more students in the primary grades at the treatment school

compared to the control school. Intermediate students did not experience a statistically significant effect ($p > .05$).

Table 22

Between Group Means of Internalizing Behaviors for Primary and Intermediate

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Primary							12.30	.01**
Treatment	153	.85	1.36	.37	.87	-.48		
Control	249	1.60	2.36	1.12	1.75	-.48		
Intermediate							.59	.44
Treatment	246	1.98	2.56	1.16	2.34	-.82		
Control	243	1.33	2.17	.93	1.93	-.40		

Note. Test source, *Student Risk Screening Scale*, 2012 **$p < .01$.

Although, it appears that both males and females performed better at the treatment school (males, $M = -.61$; females, $M = -.76$) compared to the control (males, $M = -.31$, female, $M = -.57$) the difference was not statistically significant ($p > .05$; see Table 23). Similarly, students receiving special education support experienced slightly higher rates of change than their general education peers, also without significance ($p > .05$).

Table 23

Disaggregated Between Group Means of Internalizing Behaviors for Grades K-6

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Gender							1.73	.19
Treatment								
Male	186	1.45	2.00	.84	2.01	-.61		
Female	213	1.63	2.44	.87	1.90	-.76		
Control								
Male	249	1.54	2.25	1.23	2.09	-.31		
Female	243	1.39	2.30	.82	1.53	-.57		
English Learners								
Treatment								
ELL	157	1.34	2.06	.78	1.81	-.56	1.53	.22
Non-ELL	242	1.68	2.35	.90	2.05	-.76		
Control								
ELL	94	1.12	1.80	.66	1.38	-.46		
Non-ELL	398	1.55	2.36	1.12	1.93	-.43		
Special Education							.24	.63
Treatment								
SPED	36	2.50	2.34	1.61	2.26	-.89		
Non-SPED	363	1.45	2.22	.78	1.91	-.67		
Control								
SPED	42	2.02	2.67	1.43	2.60	-.59		
Non-SPED	450	1.41	2.23	.99	1.75	-.43		

Note. Test source, *Student Risk Screening Scale*, 2012 *$p < .05$. [a]These results denote interaction effects.

Table 24 shows the disaggregation of subgroups' internalizing behaviors for primary students. Where there were no significant differences for males, females, or students receiving special education, students receiving English language supports, once again, experienced a significant interaction effect ($p < .001$). However, the interaction occurred in the opposite direction one would expect and therefore was not in support of the *Strong Kids* curriculum. The rate of change for students receiving English language support in the control group ($M = -.73$) for internalizing scores was half a point higher than the rate of change for students receiving English language support in the treatment school ($M = -.18$).

Table 25 shows internalizing behavior ratings for Intermediate students. Intermediate students did not experience any statistically significant effects for any disaggregated subgroup.

Table 24

Disaggregated Means of Internalizing Behaviors for Primary

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Gender							.82	.37
Treatment								
Male	72	.99	1.51	.43	.92	-.56		
Female	81	.73	1.20	.32	.82	-.41		
Control								
Male	131	1.49	1.96	1.19	1.74	-.30		
Female	118	1.73	2.74	1.05	1.76	-.68		
English Learners							.25	< .001**
Treatment								
ELL	53	.75	1.31	.57	1.14	-.18		
Non-ELL	100	.90	1.38	.27	.66	-.63		
Control								
ELL	57	1.40	2.10	.67	1.47	-.73		
Non-ELL	192	1.66	2.43	1.26	1.80	-.40		
Special Education							.44	.51
Treatment								
SPED	9	1.89	1.69	1.00	1.41			
Non-SPED	144	.78	1.31	.33	.81			
Control								
SPED	22	2.00	2.66	1.18	1.79			
Non-SPED	227	1.56	2.33	1.12	1.75			

Note. Test source, *Student Risk Screening Scale*, 2012 **$p < .01$. [a]These results denote interaction effects.

Table 25

Disaggregated Means of Internalizing Behaviors for Intermediate

		Pre		Post				
	n	*M*	*SD*	*M*	*SD*	Change	*F*	*p*
Gender							.64	.42
Treatment								
Male	114	1.74	2.21	1.10	2.44	-.64		
Female	132	2.19	2.82	1.21	2.27	-.98		
Control								
Male	118	1.60	2.55	1.27	2.42	-.33		
Female	125	1.06	1.72	.61	1.24	-.44		
English Learners							.96	.32
Treatment								
ELL	104	1.63	2.31	.89	2.06	-.74		
Non-ELL	142	2.23	2.72	1.35	2.52	-.88		
Control								
ELL	37	.68	1.06	.65	1.25	-.03		
Non-ELL	206	1.44	2.30	.98	2.03	-.46		
Special Education							.05	.83
Treatment								
SPED	27	2.70	2.51	1.81	2.47	-.89		
Non-SPED	219	1.89	2.56	1.08	2.32	-.81		
Control								
SPED	20	2.05	2.76	1.70	3.29	-.35		
Non-SPED	223	1.26	2.11	.86	1.76	-.40		

Note. Test source, *Student Risk Screening Scale*, 2012 *$p < .05$. [a]These results denote interaction effects.

Research Question 3: Social Validity of Strong Kids

The third research question investigated whether teachers found the *Strong Kids* curricular series to be a socially valid tool for teaching students' social-emotional learning in the elementary school setting. As the curriculum was implemented in a school that had PBIS (a multi-tiered system of support), in order to examine teacher beliefs about the curriculum three categories were examined as recommended by Benner et al. (2013): Maximizing instructional time, increasing youth engagement, and having adequate academic supports. For these reasons the analyses presented in this chapter will include perceived acceptability by all respondents in addition to questions and responses that fell within the aforementioned categories.

Only teachers at the treatment school were asked to complete the *Strong Kids* Rating Scale (SKRS) at the conclusion of the study (Lane et al., 2009). The respondents ($N = 16$) used a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The response rate was 100%. Figure 1 outlines survey respondents by the number of years they have been teaching. Survey results revealed teaching experience ranged from first year to teachers with more than 15 years of experience.

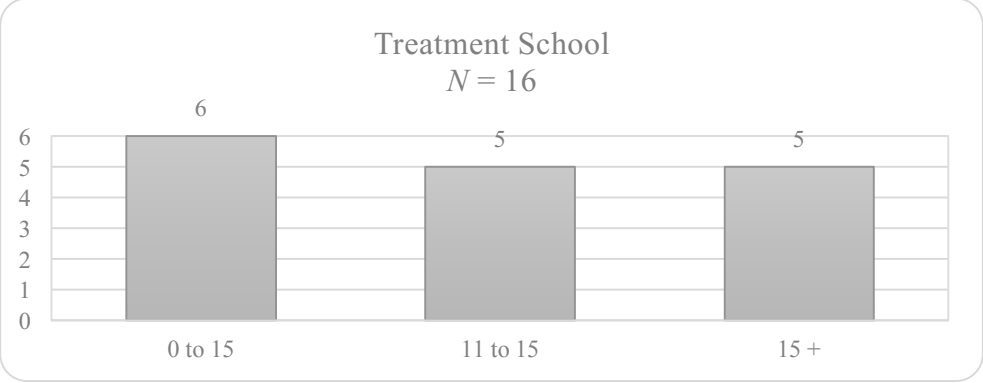

Figure 1. Treatment school number of years teaching.

***Strong Kids* Rating Scale.** When using the *Strong Kids* Rating Scale, Lane et al. (2009) recommend calculating a combined total percentage mean score in order to determine a curriculum's overall social validity rating. For this study, the percentage would be calculated by taking the sum of each respondent and dividing it by the total points possible for the survey (80 points) and then multiplying the quantity by 100 to get the percentage. Using this calculation method, the site-based mean acceptability percentage was 64%, indicating a somewhat favorable response to the *Strong Kids* curriculum. Descriptive statistics were run to determine mean scores and standard deviations by survey question and frequency tables were generated to determine the number of respondents by five-point Likert-scale rating (see Table 26). A traditional five-point Likert scale response also had a neutral option (choosing a rating of 3). Presser and Schuman (1980) indicate somewhere between 5 and 22% of respondents will typically choose a neutral response when the information being surveyed does not have dire or life altering consequences. There were several categories where the neutral response was chosen leaving lack of clarity when evaluating rating scale results.

Program acceptability. Program acceptability was determined by the evaluation of four, Likert-scale and two, open-ended narrative responses (see Table 26). The mean scores for all questions suggested slight agreement with *Strong Kids* as a viable social-emotional learning curriculum. However, less than half (44%) of the teachers believed *Strong Kids* was appropriate to meet the schools mission/vison and only 31% liked the procedures used to facilitate the program.

Table 26

Descriptive Statistics and Frequency Ratings for Program Acceptability

	Frequency		$N = 16$		Primary $n = 7$		Intermediate $n = 9$		
	Agree	Disagree	*M*	*SD*	*M*	*SD*	*M*	*SD*	*p*
I find *Strong Kids* to be acceptable for this school	75%	6%	3.94	.83	4.14	.38	3.67	1.00	.21
I would suggest the use of *Strong Kids* to other educators	44%	19%	3.35	1.22	3.57	.54	3.00	1.50	.31
I find *Strong Kids* to be appropriate to meet the school's needs and mission	44%	25%	3.35	1.17	3.57	.54	3.00	1.41	.29
Strong Kids is consistent with those I have used in other settings	44%	13%	3.53	.94	3.86	.69	3.11	.93	.10
I like the procedures used in *Strong Kids*	31%	44%	3.35	1.25	3.67	.51	2.89	1.45	.17

Note. Results are extracted from Strong Kids Rating Scale Questionnaire. A rating of 1 or 2 were included in disagree. A rating of 4 or 5 is indicated as agree. A rating of 3 is considered neutral and omitted from this table.

The first two open-ended questions solicited responses to describe features of the program that teachers felt were least and most beneficial. Most teachers (87%) provided a response to the first question, "*What do you feel is most beneficial about the Strong Kids social-emotional learning program*?" The responses listed below are representative of all responses within this category. One primary teacher stated, "Students were better at sharing their feelings with each other, communicating with each other, understanding how someone else might feel, and using their words to solve problems." Another stated, "I feel that *Strong Kids* opened up conversations about feelings and social situations that the students probably would not have a chance to discuss otherwise." Although responses seemed slightly more favorable at the primary level, an independent samples *t*-test revealed no significant difference ($p > .05$) for overall program acceptability amongst all teachers regardless of grade level. For the four questions chosen to analyze program acceptability, between 25 and 43% of respondents chose the neutral option. This is considerably higher than Presser and Schuman (1980) indicated was typical across curricular evaluations. This is possibly due to initiative fatigue. The treatment school had previously implemented two math and one combined science and English language development initiatives over the last two years. There were also several teachers who felt the program was an add-on, rather than a new initiative that would continue on year-to-year. A neutral option in this case could possibly indicate the teachers were not opposed to teaching the curriculum, but would need more information in order to make a better informed decision.

Maximize instructional time. There were four questions on the questionnaire to address maximizing instructional time for SEL learning (see Table 27). Many teachers (56%) felt as if the curriculum was manageable. Although only 38% felt *Strong Kids* could adequately address the social-emotional needs of students overall mean scores suggested, the majority of responses were favorable (all mean scores were above 3.00). The independent samples *t*-test did reveal a statistically significant difference ($p = .05$) for question 15: *Strong Kids monitoring procedures give the necessary information to evaluate the program* between primary ($M = 3.43$) and intermediate ($M = 2.56$) teachers, indicating the intermediate teachers did not believe monitoring procedures of the curriculum were adequate for their students. Between 6 and 37% of respondents provided a neutral response to the questions around instructional time. This lack of clarity was defined as pacing, scheduling, and lesson structure challenges expressed at the end of the curriculum. Teachers indicated the curriculum had "a systematic way and consistent structure of the lessons" (intermediate teacher) although they appreciated "the time set aside (at the building level) on a consistent basis to talk about feelings and situations that children face" (primary teacher). Another primary teacher felt the "pacing was helpful for newer teachers who may not know where to begin with teaching social-emotional curriculum," and the lesson sequence "helped kids become aware of their feelings and talking about different ways to handle their emotions" (primary teacher). There were concerns, however, with the "time to copy all of the supplemental material" (intermediate teacher), but the "time required to teach at this time of the school year was (also) not helpful" (intermediate teacher).

Table 27

Descriptive Statistics and Frequency Ratings for Maximizing Instructional Time

	Frequency		$N = 16$		Primary $n = 7$		Intermediate $n = 9$		
	Agree	Disagree	*M*	*SD*	*M*	*SD*	*M*	*SD*	*p*
Strong Kids is reasonable to meet the social-emotional needs of students	38%	31%	3.41	1.22	3.71	.95	3.00	1.32	.23
The *Strong Kids* series is a good way to meet the social-emotional needs of students	44%	25%	3.35	1.17	3.57	.54	3.00	1.41	.29
The *Strong Kids* series requirements are manageable	56%	38%	3.35	1.23	3.86	.90	2.78	1.30	.07
The *Strong Kids* monitoring procedures give the necessary information to evaluate the program	25%	38%	3.06	1.03	3.43	.54	2.56	1.01	.05*

*Note. Results are extracted from Strong Kids Rating Scale Questionnaire. *p < .05. A rating of 1 or 2 were included in disagree. A rating of 4 or 5 is indicated as agree. A rating of 3 is considered neutral and omitted from this table.*

Increasing engagement. The extent to which *Strong Kids* had the capacity to increase engagement is still a bit unclear. Many teachers felt the curriculum did not provide enough active participation outside of classroom discourse. There seemed to be large differences throughout the responses between primary and intermediate teachers. As an example, there was a statistically significant ($p < .01$) difference between primary and intermediate teachers for question 16: *Overall Strong Kids is appropriate for this age of students.* Primary teachers' mean score for appropriateness of the curriculum was an average of 3.86, while intermediate teachers rated it 2.56 (see Table 28). One primary teacher stated, "*Strong Kids* enforces a sense of community and inclusiveness" in the classroom, but they also learn to "share feelings in a group." Yet another primary teacher reported: "Students were better at sharing their feelings with each other, communicating with each other, understanding how someone else might feel, and using their words to solve problems. Students would often relate other learning during the day to *Henry* [the Strong Kids puppet] and what we learned in *Strong Kids*. Students personal narratives also became more descriptive when talking about feelings. I really liked the books we read, they were engaging and age appropriate. Students also LOVED *Henry* and were thrilled when he came to visit." Whereas, many teachers, specifically at the intermediate level, felt "It [*Strong Kids*] addresses emotions children may experience, but too much of the lesson was teacher directed. Needs more student involvement."

The open-ended questions at the end of the survey narrated the thinking to possibly explain several of the Likert-scaled responses. Each question was examined through the MTSS lens and describe the overall acceptability of the program. Several

comments were captured in the following statement, “The lessons need to be presented in a way that was a little more engaging and more of them [the students] doing something” (primary teacher). Additionally, there were several concerns (5 of 16 teachers) about the curriculum not meeting student engagement criteria in the classroom. For example, teachers reported too much “talking at the students,” “too teacher directed,” and “a lot of listening for students.” One primary teacher stated, “They [students] stayed engaged, but implementing more activities might help increase overall engagement.”

Table 28

Descriptive Statistics and Frequency Rating for Increasing Youth Engagement

	Frequency		*N* = 16		Primary *n* = 7		Intermediate *n* = 9		
	Agree	Disagree	*M*	*SD*	*M*	*SD*	*M*	*SD*	*p*
Strong Kids will result in negative side effects for students	0%	94%	1.47	1.07	1.14	.38	1.33	.71	.50
Overall *Strong Kids* is appropriate for this age of students	50%	38%	3.24	1.20	3.86	.38	2.56	.41	.01**

*Note. Results are extracted from Strong Kids Rating Scale Questionnaire. **p < .01. A rating of 1 or 2 were included in disagree. A rating of 4 or 5 is indicated as agree. A rating of 3 is considered neutral and omitted from this table.*

Academic supports. The final category for meeting an effective multi-tiered system of support includes having adequate academic supports. The final four, Likert-scale questions and two, open-ended questions most accurately address the social validity of this section (see Table 29). The responses varied regarding the capacity of *Strong Kids* to provide adequate academic supports. Neutrality for this section would require further investigation in order to adequately interpret the results. Just under half (43%) of respondents chose a rating of three with regard to fulfilling the social-emotional needs of students. It is possible that a neutral response is more favorable because 63% of the teachers reported they would be willing to teach *Strong Kids* if it were selected as the social-emotional learning curriculum for the district as opposed to the 19% who would not (see Table 29). More than half (56%) of the teachers thought their colleagues found *Strong Kids* to be appropriate and the difference between intermediate and primary teachers was not statistically significant.

Question three of the open ended responses, *Do you think that you and your students' participation in Strong Kids will cause your students' behavior, social, and/or learning problems to improve? Why/Why not? If so, how?* helps to understand the importance of adequate academic supports for students. There were 14 teachers who responded to this question. The majority of respondents (80%) felt the curriculum would lead to greater improvement. Some examples include:

- "I do think it will improve, I have already seen improvement for one of my hardest kids. She refers to *Henry* often and has been trying to express herself more with words" (primary teacher).

- "Yes, I think they will improve after participating in *Strong Kids*. They have learned to identify their feelings and work through issues with better communication skills" (primary teacher).
- "Yes, I really liked the ideas and vocabulary included within *Strong Kids* and I have already seen and heard my students using it – it's nice to have common language around these ideas [i.e., thinking traps] so we can discuss and problem solve individually and also as a community" (intermediate teacher).
- "I do think that the students in my class have and will continue to benefit from *Strong Kids* curriculum. I have witnessed them using kind language and showing perspectives during our lessons" (intermediate teacher).

Some, however, felt it only "helped kids learn some 'buzz' words about SEL, but I didn't think it gave them the tools they really need to change their behavior" (intermediate teacher) and "for most students, there will be no impact. They already know right and wrong. Others need a more comprehensive program that meets their needs at their level" (intermediate teacher). Still others were optimistic, "I think we will see change over time" (primary teacher), and "Hopefully improvement will take place. "I think deeper knowledge of the dynamics of emotions and interaction with others will lead to improvement" (intermediate teacher). Two questions (1) *Strong Kids should prove effective in meeting the social-emotional needs of students* and (2) *Strong Kids is a fair way to meet the social-emotional needs of students* elicited low responses of agreement (38%) with an additional 43% indicating a neutral response. These responses, I believe, are due to the adaptations teachers felt would need to be in place in order for the curriculum to be effective.

Table 29

Descriptive Statistics and Frequency Ratings for Adequate Academic Supports

	Frequency		$N = 16$		Primary $n = 7$		Intermediate $n = 9$		
	Agree	Disagree	*M*	*SD*	*M*	*SD*	*M*	*SD*	*p*
Most teachers found *Strong Kids* appropriate	56%	19%	3.71	1.11	4.14	.69	3.22	1.20	.92
Strong Kids should prove effective in meeting the social-emotional needs of students	38%	19%	3.35	.93	3.43	.54	3.11	1.05	.45
I am willing to use the *Strong Kids* series in this school setting	63%	19%	3.65	1.17	4.00	.58	3.22	1.39	.16
Strong Kids is a fair way to fulfill the social-emotional needs of students	38%	19%	3.41	1.28	3.57	.78	3.11	.93	.45

Note. Results are extracted from Strong Kids Ratings Scale. A rating of 1 or 2 were included in disagree. A rating of 4 or 5 is indicated as agree. A rating of 3 is considered neutral and omitted from this table.

Based on my experience with the teachers at the treatment school and the number of suggestions that were offered in response to: *What would you change about Strong Kids (components, design, implementation, etc.) to make it more student friendly and educator friendly*, in order to make the program more beneficial, most teachers stated they needed more time to teach the material and the program would benefit from fewer components that were connected more intentionally to growth mindset. They found the curriculum "extremely extensive" (intermediate teacher) and therefore it made it difficult to get through the material. One teacher suggested *Strong Kids* would be better if it had "more check-ins to assess learning and to see how students are internalizing concepts along the way" (intermediate teacher). Table 30 provides an overview of all teacher recommendations as they related to improvement for students, teachers, and the community as a whole. The teachers were optimistic that the program could work with a few minor adjustments that would enhance the experience for all stakeholders.

Table 30

Teacher Recommendations for Strong Kids Improvements

Suggestion	Teacher	Student	Community
Adequate Academic Supports			
Create a newsletter for parents			X
Align content to building goals	X	X	X
Use progress monitoring	X	X	
Tie to growth mindset		X	X
Provide private opportunities to share feelings		X	
Provide professional development on student motivation	X		
Maximize Instructional Time			
Reduce the number of activities	X	X	
Include small-group interaction		X	
Reduce academic vocabulary per lesson	X	X	
Provide more time to teach the program	X	X	
Add lesson around evaluating problems (i.e., a big problem vs. small problem)	X	X	X
Add lesson around arguing with peers or adults	X	X	
Increasing Youth Engagement			
Provide more engaging activities (role play, interactive, skits, Pictionary, Jeopardy)	X	X	X
Consider student: teacher talk-time ratios	X	X	
Provide time for kids to draw or write about feelings		X	

Note. Items in this table include suggestions for Strong Kids improvement as expressed by teachers on the Strong Kids Rating Scale questionnaire during the 2017-2018 school year.

Summary

Descriptive statistics, frequency tables, independent sample *t*-tests, and ANCOVAs provided a framework for understanding the data presented in this study. The *Strong Kids* Knowledge Test provided an avenue to answer question one: What is the effect of universal participation in *Strong Kids* (2nd ed.) on student knowledge of

SEL content for elementary students and are there any differential effects by demographic subgroup (i.e., primary [K-2], intermediate [3-6], male, female, and those receiving English language and special education support)? Only students in grades 3 to 6 participated in the pretest/posttest portion of this study. At the time of this investigation, there were no current scientifically validated or reliable measures available for primary students. Each student (grade 3 to 6) responded to each of the 20 questions and initial differences in treatment groups were controlled for by using the pretest as a covariate during analysis. Every student, regardless of school, experienced a statistically significant increase in social-emotional knowledge as measured by the SKKT. However, when controlling for influencing variables (male, female, ELL, SPED, or behavior rating) no statistically significant effect was found ($p > .05$). Although, there was a statistically significant interaction for students receiving English language support.

Next, research question two investigated whether participation in *Strong Kids* (2nd ed.) decreased internalizing and externalizing behaviors. A reduction in mean scores indicated an increase in social-emotional competency on the Student Risk Screening Scale. For example, a mean of 1.74 at pretest and 1.10 at post would indicate an overall improvement in behavior of -.64. For the combined rating scale (SRSS-IE12), there was a statistically significant ($p < .01$) effect from pretest to posttest for all students. In addition, primary students' receiving the treatment mean scores improved by -1.18 and their results were statistically significant ($p < .001$). There were no interaction effects for males, females, or students receiving special education support, yet there was a weak interaction effect ($p = .10$) for intermediate

students receiving English language support at the treatment school. To further understand the disaggregated effects, internalizing and externalizing behaviors were viewed separately as well.

Externalizing behaviors (e.g., aggression, low achievement, peer rejection) overall did not reveal statistically significant results. When disaggregated by primary and intermediate levels, only the primary group experienced statistically significant effects in favor of the *Strong Kids* treatment ($p < .01$), indicating *Strong Kids* was an effective curriculum for internalizing behaviors school-wide. Although there were no overall effects for intermediate students, intermediate students receiving English language support experienced a statistically significant ($p < .001$) decrease in internalizing behaviors compared to the control group.

Finally, social validity for the *Strong Kids* curriculum was explored utilizing the *Strong Kids* Rating Scale (Lane et al., 2009). One hundred percent of the teachers who implemented the *Strong Kids* curriculum responded to the survey. The teachers expressed mild social validity with an overall acceptance rating of 64%. Teachers also felt that the curriculum was mildly reasonable to meet the social-emotional needs of their students ($M = 3.71$, $SD = .95$) for primary and ($M = 3.00$, $SD = 1.32$) for intermediate. The primary teachers rated every category higher than the intermediate teachers, however only questions 15 and 16 were statistically significant. Only 50% of the teachers found *Strong Kids* to be engaging for students, but the majority (94%) were not worried about negative side-effects if the curriculum were used with students. Fifty-six percent of the teachers did feel the material was manageable, but they would like to see fewer activities overall and less direct instruction in order to

increase student engagement. The majority of respondents (86%) felt students would benefit from receiving *Strong Kids* instruction and the remaining 14% were optimistic, stating "Hopefully improvement will take place" (intermediate teacher). Many teachers felt it was user friendly, had extensive content, and provided freedom for teachers to make adjustments to increase engagement. Although, the teachers felt the program would need further modification in order to increase student engagement and increase expected outcomes.

Chapter 5: Discussion

The following chapter describes the findings as a result of the implementation of the *Strong Kids* social and emotional learning curriculum within a diverse community of learners in an elementary school serving students in grades K to 6. The chapter includes the following sections (a) summary; (b) implications; (c) limitations, (d) future research; and (e) conclusions.

Summary

The purpose of this study was to understand the effect of the *Strong Kids* (2nd ed.) curriculum on students' social-emotional knowledge. It also set out to determine if exposure to the curriculum contributed to a decrease in internalizing and externalizing behaviors, and finally to understand if teachers who implemented the curriculum viewed it as a valid tool for delivering social-emotional instruction. This study was designed to address several research gaps observed in previous *Strong Kids* research. This study was conducted using a control group design. The design was important, as the majority of the *Strong Kids* investigations were not conducted with control groups, thus demonstrating internal validity concerns. The current study was also the largest *Strong Kids* investigation to-date. It was only the seventh to explore the effects of *Strong Kids* curriculum in a school with a wide-range of demographic backgrounds. It was the first to explore the 2nd edition of the curriculum, released in 2016, and was the only study outside the influence of the original *Oregon Resiliency Project* team created by Merrell in 2001. The research design included the implementation of the *Strong Kids* curriculum, assessing student knowledge via the *Strong Kids* Knowledge Test, and examining teacher ratings of students internalizing

and externalizing behaviors as measured by the Student Risk Screening Scale (SRSS-IE12). In addition, social validity was measured using the *Strong Kids* Rating Scale (SKRS) questionnaire (Lane et al., 2009).

The study was guided by three research questions:

1. What is the effect of universal participation in *Strong Kids* (2nd ed.) on student knowledge of SEL content for elementary students and are there any differential effects by demographic subgroup?
2. What is the effect of universal participation in *Strong Kids* (2nd ed.) on student social-emotional competency disaggregated by primary (K-2), intermediate (3-6), males, females, and those receiving English language and special education supports? Specifically, do teacher ratings of students internalizing and/or externalizing behaviors decrease upon completion of the *Strong Kids* curriculum?
3. Do teachers who implemented the curriculum view *Strong Kids* as a valid tool for delivering effective social-emotional instruction?

Research question 1: Social and emotional knowledge. The first research question addressed students' social and emotional knowledge using the *Strong Kids* Knowledge Test as the dependent variable. An independent samples t-test revealed no significant differences between treatment and control schools at pretest. At posttest, it appeared that the treatment school slightly outperformed the control, however this difference was not statistically significant. A paired samples t-test indicated both groups experienced a statistically significant change ($p < .01$) from pretest to posttest, with mean scores improving for all students regardless of group (see Figure 2). This

indicates there may be a natural improvement of SEL knowledge that is not a result of the Strong Kids treatment.

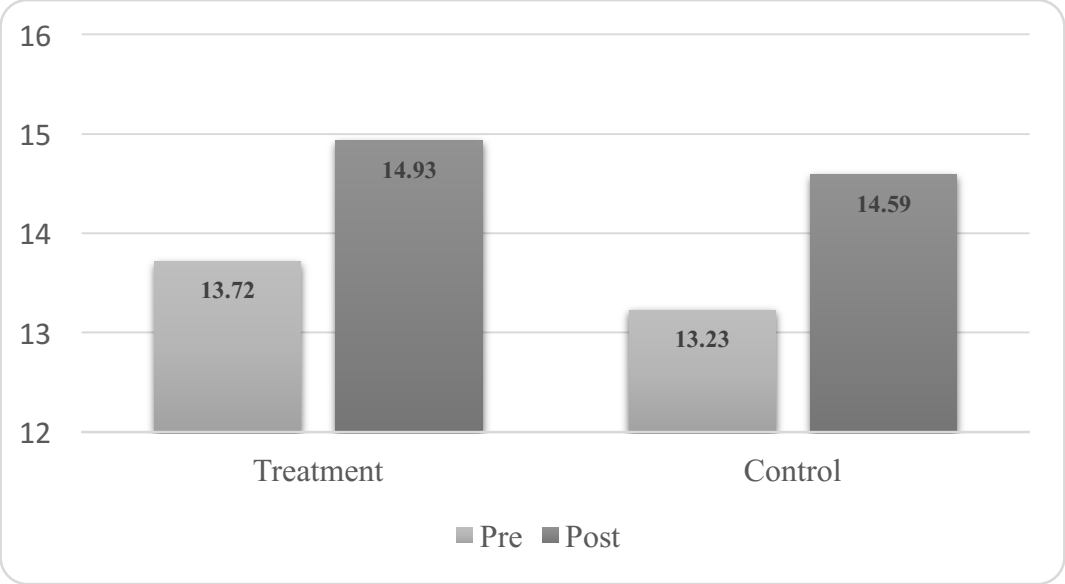

Figure 2. Between-group comparison of mean scores on Strong Kids Knowledge Test.

Data showed a gradual increase in posttest means from grade 3 to grade 6 (see Figure 3). The progression of mean scores could suggest a natural increase of content knowledge as students' progress through the grade levels.

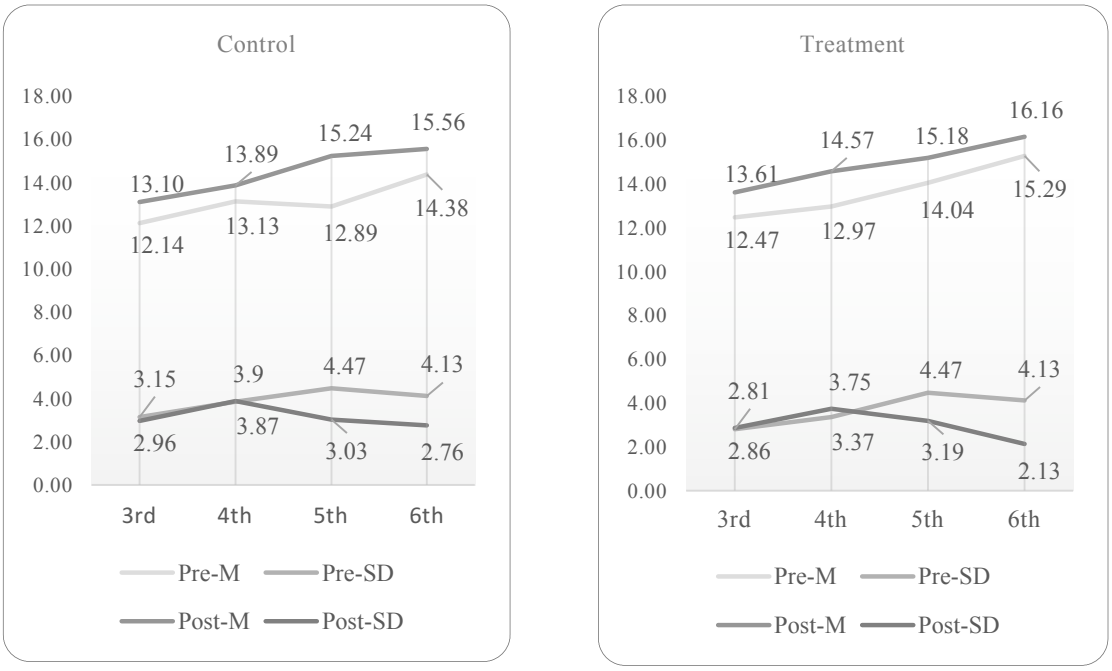

Figure 3. Between group mean and standard deviation by grade level.

A statistically significantly interaction effect ($p < .05$) occurred for knowledge scores of students receiving English language support as revealed by an Analysis of Covariance (ANCOVA). This indicated that students receiving English language support increased their content knowledge as a result of the *Strong Kids* curriculum. The extensive focus on key terms and definitions outlined in each lesson coupled with an increase in direct instruction around specific cultural and social norms potentially bridged an otherwise preexisting learning gap for English learners. The interaction found for students receiving English language support can also partially be explained by interactions between groups as defined by Bronfenbrenner's (2005) Bioecological Model and Bandura's (1997) Reciprocal Determinism Theory. Bandura and Bronfenbrenner found reciprocal interactions between students and teachers around specific academic tasks are likely to provide opportunities for delivering meaningful culturally relevant feedback that is aligned with societal norms and values. The

positive reciprocal interactions between teacher and student may have provided opportunities for students to reframe their thinking and build relationships with peers and caring adults leading toward higher academic achievement overall.

Whereas most of the *Strong Kids* studies to date were able to show increases in healthy social and emotional knowledge, only 13 were able to do so with statistical significance and only one (Castro-Olivo, 2014) considered significance in knowledge scores for students receiving English language support specifically. In Castro-Olivo's (2014) study, the sample included 40 recent-immigrant Latino high school students and content knowledge was measured via the *Strong Kids* Knowledge Test, GPA, and a teacher questionnaire reporting student academic progress. Knowledge scores on the *Strong Kids* (*Jóvenes Fuertes*) Knowledge Test increased "over 2.5 raw score points" from pretest to posttest (p. 59).

Merrell's (2008) pilot study ($N = 120$) also used the SKKT and he found statistically significant *(*$p < .01$) knowledge gains for the overall population, but it was not specific to students receiving English language support.

Merrell's (2008) study differed from the current study in two ways. First, he did not utilize a control design, and second, the curriculum was taught only by the school principal. The present study found statistical significance ($p < .05$) for knowledge scores as in Merrell; although the increases were significant regardless of group. Significance in the absence of a control group highlights the importance of conducting experimental designs which include a control group in all research going forward. The design of this study included classroom teachers delivering the SEL instruction rather than the principal. This practice is supported by Greenberg et al.

(2003) in order to ensure that caring relationships between students and teachers increase over time. The Reciprocal Determinism Model (Bandura, 1997) would further suggest when SEL curriculum is taught by a classroom teacher, the number of reciprocal interactions lead to increased academic and behavior outcomes for all students. Durlak et al. (2011) concurred and added that these interactions also enhance academic outcomes over time.

Since the curriculum was taught by the principal in the Merrell's (2008) investigation, implementation fidelity likely increased. In the current study, the curriculum was taught by 16 different teachers at 5 different grade levels and therefore implementation fidelity varied. However, the lack of significance in content knowledge between groups for the current study could also have been as a result of preexisting character education lessons provided by school counselors at each school prior to the intervention as both buildings were exposed to these conditions. The students' knowledge test mean scores at the treatment (M = 13.72, SD = 3.28) and control schools (M = 13.23, SD = 4.05) were higher than both Merrell (2008; M = 12.46, SD = 2.68) or Castro-Olivo (2014; M = 9.37, SD = 2.70) as well even though the students in this study were much younger. This contradicts the findings from this study that students mean scores increase with age, although the students in Castro-Olivo were high-school aged Latino immigrants and were only in the country a short time and it is possible that is the reason for lower mean scores compared to the current study. There was also a large standard deviation which indicated a wider-range of variance in knowledge scores amongst students. A wide variance may be an

indication of economic diversity in the school. Pong (1998) found the wider the range of economic diversity in a school, the greater the range of variance in a data set.

Research Question 2: Social and Emotional Competence

The second research question sought to understand the effect of participation in the *Strong Kids* social and emotional learning curriculum on elementary-aged students' social-emotional competency. Specifically, did teacher ratings of students' internalizing and/or externalizing behaviors decrease upon completion of the *Strong Kids* curriculum? Data were collected using the Student Risk Screening Scale (SRSS-IE12) school-wide at both treatment and control schools (Lane et al., 2012). Social-emotional competence was considered using combined scores as well as disaggregated internalizing and externalizing behavior ratings for all students in grades K to 6. A combined rating indicated total risk-level for students as rated by classroom teachers. A score of 0-3 indicated low-risk, 4-9 moderate risk, and anything greater than 10 indicated students were at-risk for developing anti-social behaviors on the SRSS rating scale. An independent samples *t*-test revealed no significant differences between groups at pretest, and teacher ratings of SEL competency improved for all students regardless of school, which aligns to the findings in Kramer's (2013) study. Similar results were also found in a separate study conducted by Kramer et al. (2010) using an alternative measure (School Social Behaviors Scale [2nd ed.]) that focused on attributes of positive peer relationships in addition to the SRSS. It is possible that smaller class sizes (11 to 22 students) in Kramer (2013) led to a decrease in behaviors due to closer student-teacher relationships, as suggested by Greenberg et al. (2003).

Overall, findings of the current study suggest that *Strong Kids* contributed to a significant increase ($p < .001$) in primary students' social and emotional competence. It was expected that the behavior rating scores would have a greater rate of change than the control as presented in Figure 4. This is consistent with Bandura's Social Learning Theory (1996), that states children pay attention to social models and may imitate or copy the behavior they observe. The positive reinforcement provided by teachers may have strengthened student behaviors and program outcomes. Although external reinforcement is often an additional contributing factor to altering a younger child's behavior because children are likely to behave in the way he/she believes will earn approval. Significance at the primary level is important for this study, as Bandura (1996) suggests this learning leads to long-term change in a child's behavior and academic outcomes over time. Longitudinal studies, as in Taylor et al. (2017), confirm this may also be true.

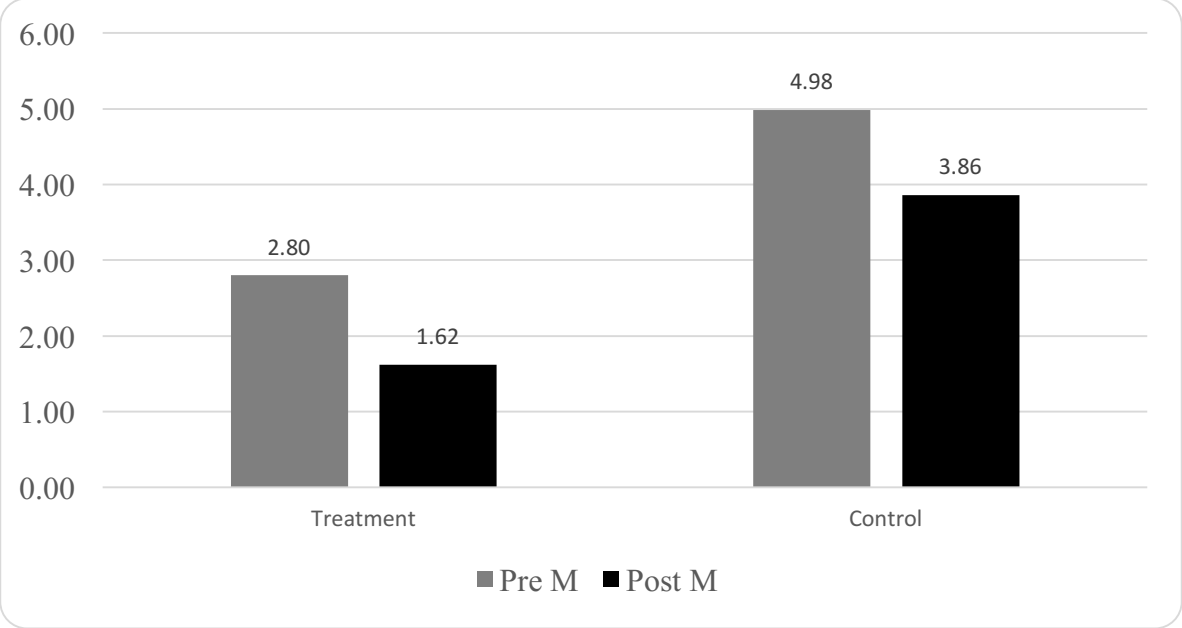

Figure 4. Combined behavior ratings for primary students. $^{**}p < .001$

Externalizing behaviors. The Student Risk Screening Scale for externalizing behaviors (e.g., behavior problem, peer rejection, negative attitude) was used to evaluate behavior ratings at pretest and posttest. There was a preexisting difference in externalizing behaviors between groups prior to the study, therefore the pretest was used as the covariate. Although behavior ratings for all students decreased, it appears the treatment had no effect for externalizing behaviors between groups. In consideration effects for primary and intermediate grade levels, a significant decrease was uncovered for primary students, indicating again that the *Strong Kids* curriculum was effective for students at this level. Although the intermediate students also experienced a significant effect (see Figure 5), the results were actually significantly higher for students in the control school. While there were no disaggregated effects for males, females, or students receiving special education services, there was a marginal effect ($p = .07$) for students receiving English language support.

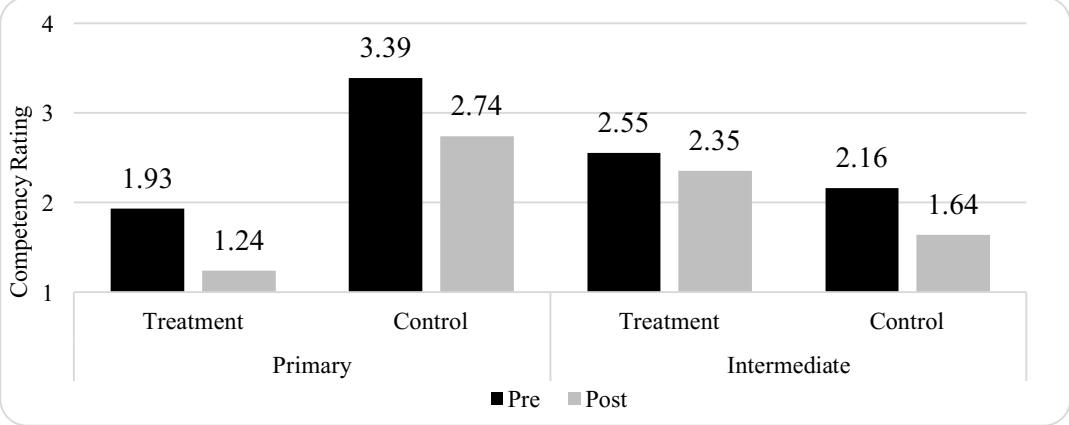

Figure 5. Between groups externalizing behaviors for primary (**$p < .01$) and intermediate (*$p < .05$).

The differences in the primary and intermediate effects between the treatment and control school indicates the results counteracted each other, thus explaining the lack of an effect overall.

Internalizing behaviors. The Student Risk Screening Scale for internalizing behaviors (SRSS-I5) was used to evaluate those behaviors not easily observed in the classroom setting (e.g., shy sad, anxious, lonely). There were no preexisting differences between groups prior to the investigation. Students at the treatment school experienced a statistically significant effect ($p < .05$) for internalizing behaviors, indicating the *Strong Kids* curriculum was effective for reducing internalizing behaviors (see Figure 6). The studies conducted by Caldarella et al. (2009) and Kramer (2013) revealed significant decreases in teacher-reported internalizing problem symptoms as well. It is interesting to note that a reduction in internalizing behaviors was also true for several other *Strong Kids* studies. Although many of these studies conducted self-reported internalizing and externalizing behavior rating scales that were slightly different from the SRSS-I5 (Berry-Krazmien & Torres-Fernández, 2007; Feuerborn, 2004; Marchant et al., 2010; Merrell et al., 2008).

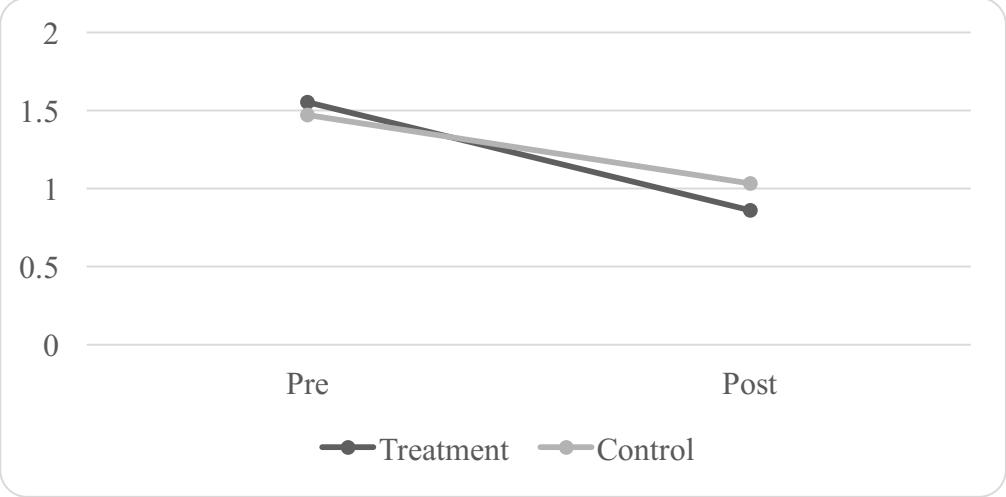

Figure 6. Between group internalizing behaviors. *$p < .05$.

When the data were disaggregated, significance ($p < .01$) was found in the primary students in grades K to 2, but not with the intermediate students in grades 3-6.

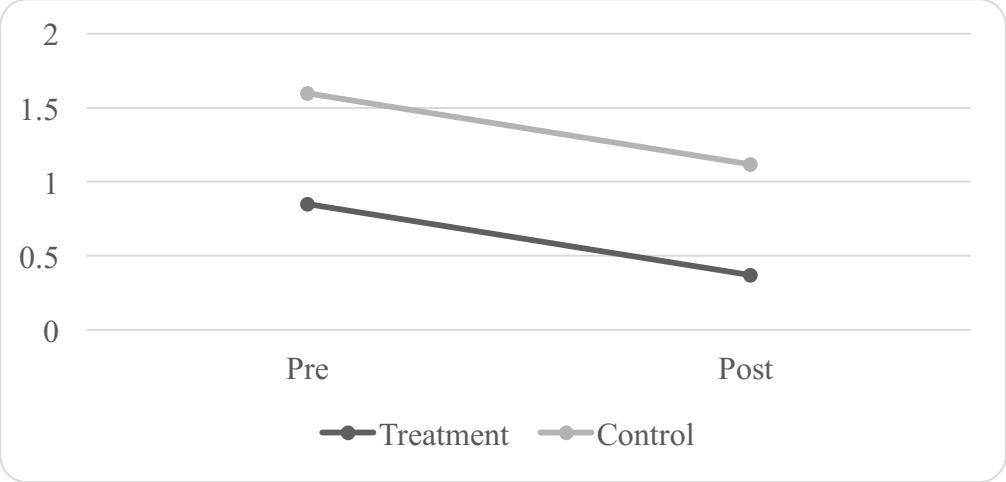

Figure 7. Between group internalizing behaviors for primary. **p < .01.

There was also lack of significance in intermediate grades found in Faust (2006), Castro-Olivo (2014), and Ross (2012). The lack of internalizing behavior change at the intermediate level may be because relationship skills are undeveloped or that primary students benefit from SEL instruction at a greater rate than intermediate students. As students get older they are entering into different types of relationships that may impact all areas of social-emotional development and cycle back to self-awareness. However, self-awareness remains integral to the development process for children (CASEL, 2017). At the intermediate level, relationships change very rapidly and may lead to an increase in internalizing symptoms (e.g., depression, anxiety, loneliness). These behaviors may also be an indicator of higher levels of adverse childhood experiences and should be a trigger for teachers to connect with moderate to high-risk students on an individual level (Crick & Dodge, 1994; Denham & Brown, 2010; Werner, 2000). There were no other significant findings for students' internalizing behaviors.

Research Question 3: Social validity. The third research question investigated whether teachers found the *Strong Kids* curricular series to be a valid tool for increasing students' social-emotional learning in the elementary schools setting. The *Strong Kids* curriculum was taught by 16 teachers in the treatment school and all teachers completed the *Strong Kids* Rating Scale to examine social validity. Prior to this investigation, only one teacher at the treatment school had previously taught a formalized social-emotional learning curriculum at some point in his/her career. Some surface level understanding of SEL was likely to have been present, as all classroom teachers participated in monthly character education lessons (one 25-minute lesson per month throughout the school year) taught by the school counselor. After the final *Strong Kids* lesson, teachers were asked to complete the *Strong Kids* Rating Scale to understand overall satisfaction with the program. The questionnaire consisted of 16 items. The respondents chose from a five-point Likert scale ranging from *strongly disagree* to *strongly agree and* four open-ended questions. Benner et al. (2013) suggested three critical elements to reduce academic opportunity gaps for students: (1) maximizing instructional time, (2) increasing youth engagement, and (3) having adequate academic supports. The analysis for social validity was considered through this lens.

Instructional time. Four questions were addressed on the questionnaire to address maximizing instructional time for social-emotional learning after implementing the *Strong Kids* curriculum (see Figure 8). The results indicated several teachers felt *Strong Kids* was manageable (56%), although only 44% felt it could meet the social-emotional needs of their students. One primary teacher stated, "Pacing was

helpful for newer teachers who may not know where to begin with teaching social-emotional curriculum." Another felt it "helped kids become aware of their feelings and talking about different ways to handle their emotions." However, an intermediate teacher expressed, "The time required to teach, at this time of the school year, was not helpful." Although it appeared that primary teachers' ratings were higher in each category, Question 15: *Strong Kids monitoring procedures give the necessary information to evaluate the program* was significantly ($p < .01$) different by grade level (Primary [$M = 3.43$, $SD = .54$], Intermediate [$M = 2.56$, $SD = 1.01$]). Represented in Figure 8 as evaluation.

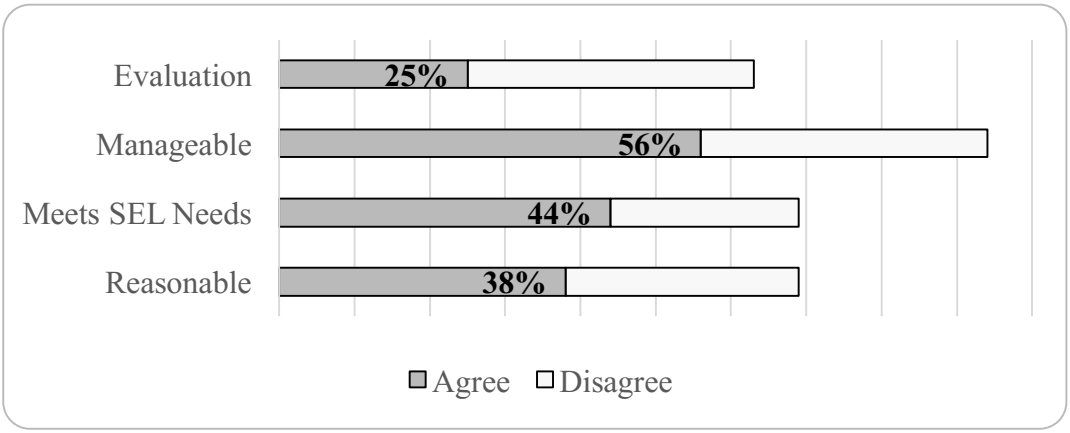

Figure 8. Survey results for teacher beliefs that *Strong Kids* helps to maximize instructional time.

Primary teachers may have been more willing to spend time on *Strong Kids* since they did not have the pressure of state-wide assessment requirements (only grades 3 to 6 take state-wide assessments at the elementary school level). In addition, the K-2 curriculum for the primary teachers utilized children's literature and a mascot, *Henry*, that several teachers indicated was very beneficial in helping kids understand SEL concepts. Enrique, Clark, and Della Calce (2017) cite that children's literature as a powerful way to walk readers through life's possibilities. Children's literature is a

great way to demonstrate characters who have "approached challenges differently and persevered through difficulties to achieve their goals" (p. 713). One primary teacher stated, "Students' LOVED *Henry* and were thrilled when he came for a visit." The intermediate lessons focused on activities and group discussions, absent of children's literature, and several participants described them as, "too teacher directed" and "had too many components for each lesson" (intermediate teachers). Still another felt, "the calming activities had little impact on student readiness for lessons" (intermediate teacher).

Student engagement. Two Likert-scale and two open ended responses were used to understand student engagement from the teachers' perspective. Question 16: *Overall, Strong Kids is appropriate for this age of student* also produced statistically significant differences between primary and intermediate teachers. The primary teachers generally agreed that it was appropriate ($M = 3.86$, $SD = .38$) and intermediate teachers significantly ($p < .01$) disagreed ($M = 2.56$, $SD = .41$). One intermediate teacher commented, "I think it helped kids learn some 'buzz' words about SEL, but I don't think it gives them the tools to really change their behavior." However, they felt if they could "reduce the number components/activities of each lesson and provide more sharing out for kids" (intermediate), it could be more effective. Although neither the primary nor the intermediate teachers believed the curriculum would have negative side effects for kids, there was a noticeable divide between the grade level bands. As early as lesson 4, several intermediate teachers started leaving the *Strong Kids* work for substitute teachers rather than using it as a method to make meaningful social-emotional connections with their students, as

encouraged by Durlak et al. (2011), Greenberg et al. (2003), and Payton et al. (2008). Without delivering the content themselves, opportunities for providing SEL content reinforcement was not possible throughout the instructional day and could have led to the lack of significance for intermediate students. This may have been avoided if a needs analysis survey had been conducted prior to program implementation in order to determine perceived level of need. Marchant et al. (2010) suggested conducting a needs analysis survey with teachers prior to the implementation of any program is likely to glean greater results overall. A needs analysis survey may have been especially helpful for this investigation due to the number of initiatives (science, ELD, math) implemented over in the district over the previous year. Initiative fatigue, as defined by Reeves (2010), happens when the number of initiatives increases and the amount of time and resources do not. It is unknown if the lack of student engagement was not actually due to the lack of teacher engagement, as it came on the end of a long list of recent initiatives.

***Academic supports*.** The final category for meeting an effective multi-tiered system of support included having adequate academic supports (see Figure 9). Although 80% of the respondents believed the curriculum would result in greater social-emotional competency for students overall, only 63% reported they would be willing to teach it again. There were no significant differences between primary and intermediate for questions regarding adequate academic supports for students. One intermediate teacher stated, "I do think that the students in my class have and will continue to benefit from the *Strong Kids* curriculum. I have witnessed them using kind language and showing perspectives during our lessons." A primary teacher also

indicated, “I do think it will improve, I have already seen improvement for one of my hardest kids. She refers to *Henry* often and has been trying to express herself more with words.” However, not all teachers were as optimistic, stating, “I do not believe this meets the needs of individual students. They already know right from wrong and others needs a more comprehensive program that will meet their needs at their level” (intermediate teacher).

Perhaps additional discourse would have helped to clarify the purpose of *Strong Kids* as a universal intervention inside of the preexisting PBIS system. I could have done a better job in promoting SEL and providing background information around the benefits of SEL for students and teachers. Communication could have been stronger school-wide. There was a clear disconnect with the level of communication in the building around intent and purpose of the *Strong Kids* program. *Strong Kids* was designed to be a resource for teaching students how to recognize feelings and equip them with ways to manage themselves academically and behaviorally. Previous studies have shown SEL to be effective, but the mixed survey results of this study would suggest teachers in the treatment school were yet convinced SEL could be beneficial.

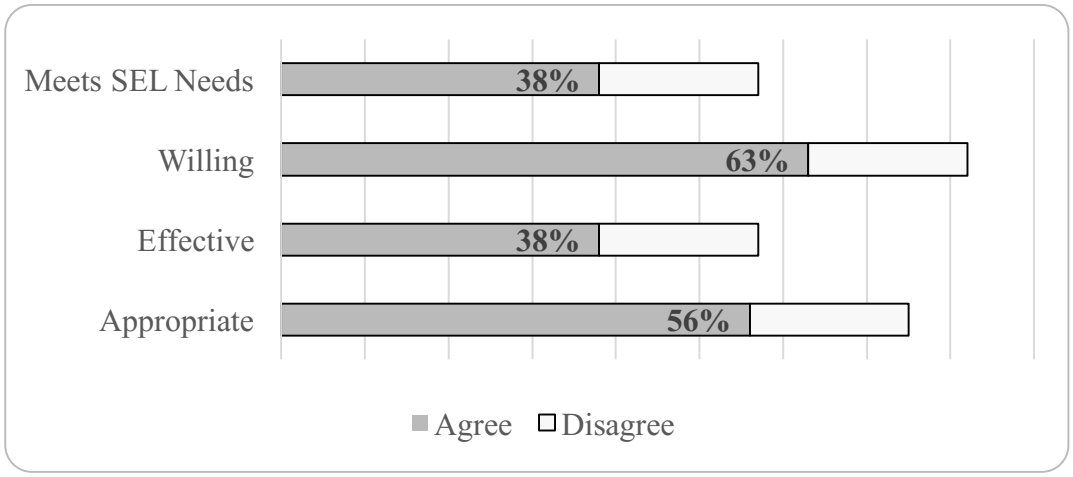

Figure 9. Survey results for teacher beliefs that *Strong Kids* had adequate academic supports.

Program acceptability. Program acceptability was determined by the evaluation of five Likert-scale responses and two open-ended narrative questions (see Figure 10). Results suggested slight agreement for the use of *Strong Kids* as a viable social-emotional learning curriculum. However, less than half of the teachers believed *Strong Kids* was appropriate to meet the school's mission and vision and even fewer reported liking the procedures used to facilitate the program as indicated on the survey. Overall satisfaction was calculated using the formula for program acceptability (sum of each teachers' rating/80, multiplied by 100, and then averaged between all teachers in the study) put forth by Lane et al. (2009). The overall site-acceptability rating for this study was 64%, indicating teachers modestly believed *Strong Kids* was a valid tool for teaching social-emotional skills to elementary aged students. This was lower than the rating of treatment revealed in both Caldarella et al. (2009; 92%) and Kramer (2013; 86%).

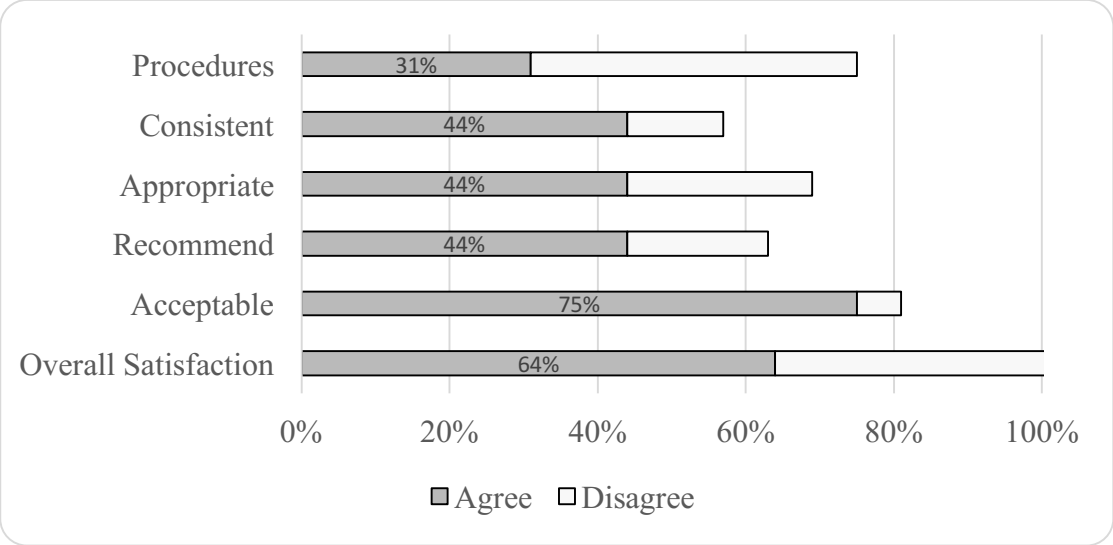

Figure 10. Survey results for teacher beliefs for overall program acceptability.

Although the program was only thought to be moderately acceptable, the teachers at the treatment school were optimistic that with a few modifications the program could be more beneficial for kids. Table 30 provides a list of their suggestions and included adaptations the treatment school teachers believed would better support teachers, students, and the community.

Implications

Over the years, studies have demonstrated many benefits around utilizing a social and emotional learning curriculum as a universal intervention within multi-tiered systems of support (Durlak et al., 2011; Marchant, 2010; Taylor et al., 2016). Understanding how to identify and respond to emotions, develop empathy, and deal with anger can not only help the child develop social-emotional competency, but can also help teachers make informed decisions around groupings, problem solving, instruction, and classroom management practices (Alfano & Beidel, 2014; Ashdown & Bernard, 2012). This study indicated that the *Strong Kids* curriculum helped to guide students through their understanding of self, functioning within the context of

the environment, and developing of behaviors that impact decision-making now and long into the future. When students understand themselves, long-term SEL outcomes aligned with the theoretical framework outlined in Chapter 2, is likely to occur (Bandura, 1986; Bronfenbrenner, 2005; CASEL, 2017). This is powerful for student learning. Durlak et al. (2011), Payton et al. (2008), Taylor et al. (2017), promote the long-term value students gain from developing social and emotional competencies. The implications for this study will be described next in terms of social-emotional knowledge, social-emotional competence of elementary aged students, and understanding of multi-tiered systems of support.

Social-emotional knowledge. Initial findings of this study moderately support the use of *Strong Kids* as a curriculum to support universal, Tier 1 efforts in this school's multi-tiered system of support. The intentional design of the *Strong Kids* series included a systematic approach for each lesson that was predictable (format was consistent throughout each lesson), provided examples and non-examples, and increased opportunities for discourse with students about abstract SEL concepts such as empathy (Carrizales-Engelmann et al., 2016). The authors provided suggestions for teachers to include culturally responsive practices in their classrooms which were only accessible when lessons were taught with fidelity. This was especially important for the treatment school population, as the students were demographically, culturally, and linguistically diverse when compared with other *Strong Kids* studies. The data revealed that students receiving English language support experienced a significant interaction effect ($p < .05$) for SEL knowledge as a result of the curriculum. This indicates *Strong Kids* was effective for students receiving English language supports.

Support for English learners was also found in Winsler, Kim, and Richard (2014). They conducted a study with a group of high poverty students receiving English language support to examine the extent to which SEL and behavioral skills were related to language acquisition. Although this was outside the scope of this study, it was very exciting to note that their findings supported their hypothesis. They believed, "Children with stronger social and emotional competency skills at age 4 are better equipped to acquire their second language than English Language Learners (ELL) who remained predominately Spanish speaking in Kindergarten" (p. 2251). Winsler et al. and the results of this study together support teaching SEL in classrooms where teachers are providing support for English language regardless of grade level. Winsler et al. (2014) also suggested this may be because, in general, "bilingual individuals are stronger than monolinguals in inhibitory control and executive functioning" (p. 2551). The findings of the current study, in concert with Winsler et al. (2014), suggest teaching social-emotional curriculum to students receiving English language support may lead to even greater academic and second language acquisition outcomes.

Treatment fidelity may have drastically impacted knowledge results for this study. As indicated on more than 80% of fidelity checklists full program implementation only occurred 20% of the time. Although the *partial* category did not indicate how much of each section was taught and to what level, prevention science research indicates if a curricular tool is not implemented with fidelity then expected outcomes will not be realized (Durlak et al. 2016; Marchant et al., 2010). The results of this study support this finding.

Social-emotional competence. The overwhelming fact is that many students come to school affected by traumatic experiences that educators may or may not be aware of let alone relate to (Doll & Lyon, 1998; Felitti et al., 1998; Swartz, 2017). Teachers must have tools, like social-emotional learning curricula, in order to work with students who have been exposed to adverse childhood experiences. Therefore, in order for schools to provide a place where all learners can thrive, systems must be in place to support all students. The results of this study indicate that the *Strong Kids* social and emotional learning curriculum had a significant positive effect on overall social-emotional competency for primary students (see Table 13). Although there may be other reasons for significance at the primary level (a) teachers at the primary level may implement more explicit teaching of desired behaviors with examples and non-examples; (b) primary students' emotions may be easier to read compared to older students who may have more skills or ideas about social norms, the results were significant ($p < .001$). This has positive practical significance as well. If students at the primary level are able to demonstrate high degrees of self-awareness, self-management, and social awareness at a young age, they may be more likely to develop greater relationship skills and make responsible decisions (as described by CASEL, 2017) that will follow them throughout their education (Caprara et al., 2000; Taylor et al., 2017). Durlak et al. (2011) suggests they may exhibit greater levels of academic achievement as well. The significant findings of this study suggests schools should start teaching social-emotional concepts in the primary grades in order to experience greater behavior and academic outcomes in the later grades.

Benner et al. (2013) indicated that teachers lose approximately 58% of instructional time due to problem behaviors in the classroom. Results of this study indicated the *Strong Kids* treatment had a significant effect on externalizing behaviors for primary students ($p < .05$), which suggests problem behavior (negative and aggressive behaviors) could be reduced by starting curriculum at the primary level ($p < .01$). Finally, in consideration of students' internalizing behaviors (e.g., shy, sad, anxious, lonely), there was also a significant effect between groups for all students ($p = .04$), indicating the change did not occur by chance. An examination of primary and intermediate levels indicated that primary students specifically experienced a statistically significant effect ($p < .01$). The findings of Caprara et al. (2000) and Taylor et al. (2017) indicate that SEL programs that are able to demonstrate effective protocols with significant results are able to maintain behaviors and increase academic achievement over time. If this remains constant for the treatment school, then the practical implication is that students would experience greater gains academically and behaviorally because the environment would improve as a whole.

Multi-tiered systems of support. Both treatment and control schools have been implementing the PBIS program for several years. The researcher has been a teacher in the treatment school for three years and at no time had the PBIS team utilized a screening tool, such as the SRSS, in order to address student behavior needs. Schools across the district have relied on teach-reteach, recognition, and office disciplinary referral data review to determine next steps for promoting desired behaviors school-wide. In addition to teaching the *Strong Kids* curriculum in primary classrooms, the school would likely benefit from the use of a behavior screener, such

as the SRSS-IE12. Although outside the scope of this study, the screener data, compared with behavior referrals (as indicated in Horner & Sugai, 2015) can act as a powerful tool for putting preventative measures in place for student academic supports. The SRSS data for this study revealed 25% of students in the treatment school and 33% of students in the control were rated in the moderate to high-risk categories by their classroom teachers. The leadership team at Eastern Upper Peninsula Intermediate School District suggested if more than 20% of all students fall into the moderate to high-risk categories, there is likely to be a need for strengthening universal supports, providing targeted professional development for all staff using system-wide Tier 1 strategies, or working collaboratively to determine other universal strategies that improve school climate. Next, they suggested a school should look at grade-level and classroom data for internalizing and externalizing behaviors to determine areas of need. When risk-level data is compared between classrooms, leadership teams can triangulate data with academic screeners (e.g., DIBELS) and attendance data to identify students who may be in need of additional support. Lane et al. (2012) also suggested several low-intensity classroom strategies to increase engagement and decrease behavior issues such as: increasing opportunities to respond, behavior specific praise, active supervision, and incorporating more choice into classroom instruction. Finally, the classroom data could lead to identifying individual students who need specific, targeted intervention. They could then be assigned to a strategy group (taught by a counselor or intervention specialist) or referred to a student support team for further direction in providing appropriate, individualized supports. The current model, in response to maladaptive behavior, consists of elementary

principals or school counselors delivering Tier 2 and Tier 3 intervention on an as needed basis.

Results of this study contain many significant and practical implications for education. The research questions led to some unintended results that may help the district grow as a result. The *Strong Kids* curriculum was considered to be a moderately acceptable curriculum as revealed on the *Strong Kids* Rating Scale. When teachers taught the curriculum with fidelity as indicated on the fidelity checklists, results suggested students gained the social-emotional competency skills necessary for school. The statistically significant effects for students indicate *Strong Kids* was effective for primary students overall as well as students receiving English language support. Teaching primary children how to manage emotions, have empathy for others, solve problems, and make responsible decisions, this and other investigations have shown, can help students maintain healthy relationships with themselves and others for a lifetime.

Limitations

Conducting research within existing school settings does not go without its challenges. Therefore, this study should be considered in consideration of several limitations to the work with regard to design, timing, instruments, and implementation.

Design. While every attempt was made to reduce the number of threats to internal validity, there were several that occur naturally in educational experiments due to the use of existing classrooms. Although there were no significant differences between groups, without a *true experimental* design (randomization in treatment

assignment) it is not possible to generalize these findings across schools. Furthermore, in the control school's nine teachers had taught a social-emotional curriculum at sometime in his/her career, compared to one teacher at the treatment school. This affects the design because, based on previous instructional experiences, the control school had greater experience with SEL and may have naturally used those strategies in their classrooms, influencing their children, and thereby unintentionally reducing the effects of *Strong Kids* overall.

Timing. When *Strong Kids* was implemented the curriculum was viewed by many treatment school teachers as an add-on rather than part of the preexisting PBIS system, and therefore was regarded with some apprehension early on. If the program had started later in the year, it teachers would have more time to get to know their students, build classroom community, and plan more appropriately for lessons. In addition, this could have provided more time for professional development in SEL instruction and assessment before and during the implementation phase of this study. Timing may also have been impacted because it came after a long list of initiatives as previously described in student engagement as described in chapter 4.

Instruments. Although there are challenges with assessing elementary aged students in grades K to 2, the lack of a tool to measure knowledge outcomes limited the number of participants assessed to address the first research question. One study assessed the knowledge of primary students utilizing the *Strong Start* Knowledge Interview, a series of 20 questions delivered by a team of graduate researchers (Felver, 2013). The interview was not feasible for this study due to lack of personnel for delivering the interview. Whitcomb and Parisi Damico (2016) utilized an

experimental knowledge assessment for first graders, however their results indicated the test may have been too easy. They experienced *ceiling effects* for this measure throughout, which is one reason it was not chosen for replication with this work. Had there been an assessment at the primary level, data could have been examined for the entire population giving broader understanding of knowledge for all grade levels. Utilizing both a universal SEL program (*Strong Kids)* and a universal, norm-referenced screener for internalizing and externalizing behaviors (SRSS-IE12) may make this study more generalizable across K-6 educational systems.

Another possible limitation to the *Strong Kids* Knowledge Test for grades 3 to 6 was the method of delivery. Several challenges arose in the fall when conducting the test. The knowledge test was created electronically using Google Forms. Ideally, teachers would provide the URL (a unique web address that links directly to the assessment) for students, they would enter it in to the search engine, and the test would appear. Unfortunately, the researcher did not take into account the number and type of symbols that would be presented in a unique web address within the Google system. Both 3rd and 4th grade students struggled to enter the different variations of symbols and characters. The researcher helped the 4th grade teachers facilitate the entering of the characters. However, on several occasions, the letters, spaces, and special characters were not entered exactly as written, and the link did not work. Therefore, the researcher created icons for every computer in the lab so the students could simply click on the icon and the test would appear. This was not a sustainable option as the technology department for the district eliminated any unauthorized icons from existing desktops on a nightly basis. The 3rd grade students were not as proficient using the

Chromebooks in the fall. As a result of the fourth grade's struggle with the URL and the 3rd graders' limited computer skill demonstration, all 3rd grade teachers delivered the paper pencil version of the test and a classroom volunteer entered the data for the researcher. Although the tests were identical, this was a limitation because the type of assessment (paper or electronic) potentially altered the way a child interacted with the test. It is important to note that the electronic test created more of a control for pretest-posttest interaction effect because the questions were presented in random order.

Every teacher, regardless of school, completed the SRSS-IE12 rating scale for their classroom. This was a potential limitation as it is only one data point. The validity of the rating could be increased by asking parents, counselors, or an individual the student trusts to offer additional data points by which to triangulate student ratings. Lane et al. (2012) demonstrated the SRSS-IE12 assessments do have predictive validity, but without experience in assessing for student behavior it is possible that they may glean different results. The categories provided in the SRSS were also problematic for some teachers. Several teachers were concerned about a lack of working definitions for the rating categories assessed. This was a perceived limitation for teachers as they felt apprehensive about rating their students incorrectly and could have hindered the reliability of the measure as a result. Michigan's Integrated Behavior and Learning Support Initiative (MIBLSI, 2017), suggests that the SRSS, if used properly, is a norm-referenced universal screening tool to better inform instruction. On their website, www.miblsi.org, they provide answers to seven frequently asked questions that provide clarification for screening protocols as well as

direction around how the SRSS can best be used in conjunction with the data from the School Wide Information System (used for tracking and reporting office disciplinary referrals) as part of a comprehensive PBIS system. The rating scale intentionally excluded operational definitions. Several validation studies were conducted examining the reliability and validity of the SRSS-IE without defining the categories (MIBLSI, 2017). The tools were found to have predictive capabilities without operationalizing the definitions. Any change or modification in procedure to the SRSS would likely compromise the data and invalidate the tool. Therefore, it was used as defined by Lane et al. (2009).

One other possible limitation with the SRSS-IE tool was the implementation protocol. During the fall screening session, teachers were asked to rate each student, one category at a time, placing a zero in the box if the student did not demonstrate the behavior. There were several teachers in each building that felt the entering of zeros, for so many students, was tedious. Therefore, at the conclusion of the study, when teachers entered their behavior ratings for each student, the researcher suggested they would not need to enter zeros in the categories and only place the 1-3 scaled ratings for the categories that applied. This is a possible limitation because the rating scales for several classrooms dropped drastically indicating the categories may not have been adhered to as carefully as they had been in the fall. As an example, a student in the fall who had a score of 10 indicating a moderate risk-level, was rated a zero in the winter. It is unlikely that a student would demonstrate moderate effects in fall and then no effect just 12 weeks later. This limitation therefore, should be considered when interpreting this data.

Finally, it may have been a limitation that the control school teachers were aware that the assessments pertained to SEL knowledge gains. Teachers may have wanted to show their students had made gains over time. In order to avoid testing effects, observational data could have been collected about students internalizing/externalizing behaviors, eliminating the potential for unintentional teacher bias. This could also be reduced by increasing randomization in the study and implementing a true experimental design altogether.

Implementation. The curriculum implementation process could also be a potential limitation for a variety of reasons. First, the populations were selected as a result of convenience (the researcher taught in the treatment school) and teacher participation was compulsory (principal volunteered their teachers to participate). This posed several confounding challenges. In the treatment school, teachers may not have agreed that implementing a SEL curriculum was necessary for the students. Second, the teachers were already busy and the additional requirements of a new SEL curriculum may have felt overwhelming, and in some ways, burdensome. During the previous year, the teachers had to implement two new math curricular components and a new district-created science curriculum, both of which included modifications in instructional practices. Although *Strong Kids* is promoted as a program that requires limited professional development or training, the amount of training teachers were provided may be seen as a limitation because teachers were only provided an overview of social and emotional learning and a description of the study prior to implementation. The researcher did provide ongoing support by way of pacing and clarification, but no other direct trainings were provided. Furthermore, at no point

were the teachers surveyed to determine the perceived need of social and emotional learning for students in the treatment school. Teacher buy-in is critical. As Durlak et al. (2016) suggests, that when teachers do not believe in a curriculum, the implementation is likely to suffer. Greater teacher buy-in increases outcomes through greater implementation fidelity which in turn elicits stronger outcomes for students (Durlak et al., 2016). The perception data were not gathered; therefore, its possible effects are unknown. It is possible that this oversight could have led to reduced treatment fidelity and therefore student knowledge assessments would be lower (as indicated in the study). Finally, treatment fidelity is also a limitation in this study. As a participant observer in the study, the researcher had to rely heavily on the teachers in the treatment school with regard to implementation. Carrizales-Engelmann et al. (2016) provided the *Basic Fidelity Checklist* to match the curriculum manuals. Rating components for each lesson ranged from 7 to 12 activities. Although several checklists came back rated *full* or fully implemented, many came back signifying *partial* or not implemented as intended. There were a few teachers who not only completed the checklist in its entirety, but also identified conditions that may have affected the fidelity of the lesson overall as requested in the checklist directions. It was the researcher's hope that the flexibility in lesson delivery would lead to increases in teacher fidelity. However, it is possible the addition of the *Running Short on Time* component reduced the pressure of full implementation and allow for teachers, who were already so busy, to choose that option rather than attempt the curriculum as written. Durlak et al. (2016) suggests that without proper implementation there is no way to tell "if the program failed because of poor implementation or if the program

itself was ineffective" (p. 336). This was the first study to date using the 2nd edition of the *Strong Kids* series with a school-wide sample. Therefore, more studies using the *Running Short on Time* option are needed in order evaluate the effectiveness of this option.

Future Research

Several recommendations for future research emerged as a result of this study. First, CASEL (2017), Durlak et al. (2011), and Payton et al. (2000) have paved a way for understanding the importance of SEL from an individual student's perspective. The work of Felitti et al. (1998), although two decades old, still provides a compelling argument for supporting the extensive social and emotional needs of students in order to support healthy choices in the classroom. Limitations from this study, as well as the research of Durlak et al. (2016), indicate that implementation of curriculum continues to be a challenge. A research gap exists, specifically for the *Strong Kids* work. Each study to date only followed groups of students for one treatment cycle. There are no studies that examine the long-term impact of *Strong Kids* after multiple years of exposure. One suggestion might be to evaluate if social-emotional competency and academic outcomes change after a second or third year of *Strong Kids* programming. A pretest-posttest, extended posttest design could be very powerful to view over a period of six years in order to track the progression of a student from Kindergarten through Grade 6. This would provide not only a long-term view, but would be valuable to compare with the long-term programs evaluated in Taylor et al. (2017). This may also include incorporating it into all levels of tiered intervention for students. Utilizing the SRSS as a screener, breaking students into groups based on skill deficits,

and having elementary school counselors use *Strong Kids* as a reteach component in order to increase skills for students who need more repetition to be successful.

Future research could also include a meta-analysis of *Strong Kids* that focus directly on how partial implementation (*Running Short on* Time) versus full implementation of the curriculum effects academic and behavioral outcomes. Narrowing the effects to exclude teacher expertise (surveying teachers ahead of time), evaluating the number of at-risk students within a single classroom, or the degree to which multi-tired systems of support are integrated school-wide are also possibilities for extending the *Strong Kids* research.

Finally, the SRSS-IE12 behavior screener used in this study provided a tool for incorporating screening and progress monitoring into pre-existing PBIS systems. Although programs such as CI3T (Lane et al, 2014) and MIBLSI (2017) have been using curriculum based measures for years. The tools are readily available and the SRSS-IE is a no-cost option available for download and immediate use within districts. There are several support options such as videos, implementation guidelines, and frequently asked questions to make this a viable tool for districts looking toward more preventative efforts. Many *Response to Intervention* models utilize screeners and progress monitors for academics on a regular basis. Therefore, the jump to behavior screening does not seem so far fetched.

Conclusion

The *Strong Kids* series is a highly vetted social and emotional learning curriculum intended to support the social-emotional needs of students. The current

study was only the second in *Strong Kids'* history (32 investigations) to address the curriculum as a universal tool for teaching social-emotional competency skills at the elementary level school-wide. It also served as the largest study to-date ($N = 892$) outside the influence of Merrell and the *Oregon Resiliency Project* participants (Merrell, 2010).

Research has shown there remains a need for supporting the social and emotional wellness of students (Durlak et al., 2011; Felitti et al., 1998; Greenberg et al., 2003). Since the economic downturn of 2008, populations have been shifting around the state. Demographics have changed and many schools are in need of tools to support students with needs that are often out of their control (ACEs). Making significant changes for young people who may have experienced the impact of abuse, trauma, or neglect is the ultimate goal of SEL instruction (Morgan et al., 2015; Plumb et al., 2016). This work is ever-changing and there remains a tremendous need for educators to be well-informed about the current state of their students and ways to support them. West et al. (2014) encouraged a trauma-sensitive approach to development aligned with Bronfenbrenner's (2005) Bioecological Theory of Human Development.

The population at the treatment school has shifted dramatically as well over the last 10 years. Teachers have been working within their locus of control within a moderately implemented PBIS system of support. It was my hope that the *Strong Kids* curricular series would prove to be a statistically significant, socially valid curriculum that would provide desired prosocial outcomes for the students. However, the results of this study were less than desirable for overall effects. Seventy-five

percent of the teachers felt it was an acceptable tool, but would need several accommodations or modifications in order to meet the needs of our student population.

Although not all analyses revealed the anticipated results, findings suggested the curriculum had a statistically significant impact on knowledge of SEL concepts for students receiving English language support. This is especially impactful for the treatment school where the number of students receiving English language support (*n* = 104) made up more than 25% of the population. The impact for these students alone would make the program worth considering for long-term use within the building, if only as a small-group intervention. The SRSS-IE12 revealed statistically significant effects for students' internalizing and externalizing behaviors at the primary level. This is important because this means the treatment worked to support primary student wellness through SEL development as presented in CASEL's (2017) core competencies: self-awareness, self-management, social-awareness, relationship skills, and responsible decision making.

Numerous meta-analyses conducted by Durlak et al. (2011), Payton et al. (2000), and Taylor et al. (2017) indicated that increases in social-emotional competency can and have proven to translate to positive prosocial behaviors and long-term success throughout school and into adulthood. The results of this study support those findings and indicate it is worth considering as a universal social and emotional learning curriculum at the primary level. Overall, *Strong Kids* produced mixed results for this quantitative study. Durlak et al. (2011), among others indicated the use of social-emotional learning curricula is effective for students overall academic and behavior outcomes. However, in order for those results to be realized teachers must

teach the program with fidelity. As Marchant (2010) found, it does not matter how good the curriculum is, if the students are not receiving the intended content. Any staff that is considering the use of *Strong Kids* as their universal tool would benefit from a survey that solicits feedback similar to the *Strong Kids* Rating Scale both prior to and at the conclusion of the study. This will help to set the stage for the ongoing professional development needed in order to make program implementation more concrete before a true evaluation of the program can be considered. Using a rating scale of some kind to determine staff development, coupled with clear expectations of curricular and assessment measures will likely lead to results as experienced in previous social-emotional curriculum studies. Finally, I believe this program, when fully implemented, can be effective when utilized within a well-structured, multi-tiered system of support. Identifying risk levels utilizing the SRSS behavior screener in conjunction with academic outcomes can provide a clear picture of student academic and behavior needs. With this tool in place, *Strong Kids* can be implemented as the universal tool for social-emotional instruction and students identifying as at-risk for anti-social behaviors could get a second exposure by receiving lesson reviews with the school counselor during intensive small group sessions. With these tools in place, schools may be able to take a confident step toward promoting students who are able to perform academically, work well with others, and become responsible citizens (Burroughs & Barkauskas, 2017; Chodkiewicz & Boyle, 2017; Durlak, Weissberg, Dyminicki, Taylor, & Shellinger 2011; Jones & Doolittle, 2017; Payton et al., 2008).

References

Alfano, C. A., & Beidel, D. C. (2014). *Comprehensive evidence-based interventions for children and adolescents*. Hoboken, NJ: Wiley.

Arwood, E. & Young, E. (2000). *The language of respect: The right of each student to participate in an environment of communicative thoughtfulness*. Nashville, TN: Apricot.

Ashdown, D. M., & Bernard, M. E. (2012). Can explicit instruction in social and emotional learning skills benefit the social-emotional development, well-being, and academic achievement of young children? *Early Childhood Education Journal*, *39*(6), 397-405. doi:10.1007/s10643-011-0481-x.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, N.J.: Prentice-Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.

Barker, E. S. (2015). *Promoting positive teacher-child interactions through implementation of a social emotional learning curriculum with performance feedback*. (Unpublished doctoral dissertation). Retrieved from http://scholarworks.umass.edu/dissertations_2/345. University of Massachusetts, Amherst.

Battistich, V., Schaps, E., Watson, M., Solomon, D., & Lewis, C. (2000). Effects of the child development project on students' drug use and other problem behaviors. *The Journal of Primary Prevention*, *21(1),* 75-99.

Baum, N. L. (2005). Building resilience: A school-based intervention for children exposed to ongoing trauma and stress. *Journal of Aggression, Maltreatment & Trauma*, *10(1-2),* 487-498.

Bear, G. G., Minke, K. M., Griffin, S. M., & Deemer, S. A. (1998). Achievement related perceptions of children with learning disabilities and normal achievement: Group and developmental differences. *Journal of Learning Disabilities*, *31*(1), 91-104.

Benard, B. (2004). *Resiliency: What we have learned*. San Francisco, CA: WestEd.

Benner, G., Kutash, K., Nelson, J., & Fisher, M. (2013). Closing the achievement gap of youth with emotional and behavioral disorders through multi-tiered systems of support. *Education and Treatment of Children, 36*(3), 15-29.

Berry-Krazmien, C., & Torres-Fernández, I. (2007). *Implementation of the Strong Kids curriculum in a residential facility*. Poster presentation presented at the annual meeting of the National Association of School Psychologists*,* New York.

Brackett, M. A., Rivers, S. E., Reyes, Maria R., & Salovey, P. (2012). Enhancing academic performance and social and emotional competence with the RULER feeling words curriculum. *Learning and Individual Differences, 22*(2), 218-224.

Bradshaw, C. P., Koth, C. W., Bevans, K. B., Ialongo, N., & Leaf, P. J. (2008). The impact of school-wide Positive Behavioral Interventions and Supports (PBIS) on the organizational health of elementary schools. *School Psychology Quarterly*, *23*(4), 462. doi:10.1080/10409289.2010.497450.

Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology, 22*(6), 723-42.

Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development*. Thousand Oaks: Sage Publications.

Bruni, L. (2015). *The impact of teaching of social emotional skills on student and teacher perception of school success* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 2686994)

Burroughs, M. D., & Barkauskas, N. J. (2017). Educating the whole child: Social emotional learning and ethics education. *Ethics and Education*, *12*(2), 218-232. doi:10.1080/17449642.2017.1287388.

Burns, M. K., Warmbold-Brann, K., & Zaslofsky, A. F. (2015). Ecological systems theory in school psychology review. *School Psychology Review, 44*(3), 249-261. doi:10.17105/spr-15-0092.1.

Caldarella, P., Christensen, L., Kramer, T. J., & Kronmiller, K. (2009). Promoting social and emotional learning in second grade students: A study of the Strong Start curriculum. *Early Childhood Education Journal*, *37*(1), 51-56. doi:10.1007/s10643-0090321-4.

Caprara, G. V., Barbaranelli, C., Pastorelli, C., Bandura, A., & Zimbardo, P. G. (2000). Prosocial foundations of children's academic achievement. *Psychological Science*, *11*(4), 302-306.

Carrizales-Engelmann, D., Feuerborn, L. L., Gueldner, B. A., & Tran, O. K. (2016). *Merrell's Strong Kids, grades 3-5: A social and emotional learning curriculum* (Second ed.). Baltimore, MD: Brookes Publishing.

Carrizales-Engelmann, D., & Feuerborn, L.L., Gueldner, B.A., & Tran, O.K. (2016). *Merrell's Strong Kids, grades 6-8: A social and emotional learning curriculum* (Second ed.). Baltimore, Maryland: Brookes Publishing.

Castro-Olivo, S. M. (2014). Promoting social-emotional learning in adolescent Latino ELLs: A study of the culturally adapted Strong Teens program. *School Psychology Quarterly, 29*(4), 567-577. doi:10.1037/spq0000055.

Catalano, R. F., Berglund, M. L., Ryan, J. A., Lonczak, H. S., & Hawkins, J. D. (2004). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *The Annals of the American Academy of Political and Social Science*, *591*(1), 98-124. doi:10/1177/002716203260102.

Center for Disease Control. (2014). *Essentials for childhood: Steps to create safe, stable, nurturing relationships and environments*. Retrieved from https://www.cdc.gov/violenceprevention/pdf/essentials_for_childhood_framework.pdf.

Chodkiewicz, A. R., & Boyle, C. (2017). Positive psychology school-based interventions: A reflection on current success and future directions. *Review of Education, 5*(1), 60-86. doi:10.1002/rev3.3080.

Cikrikci, Ö., & Odaci, H. (2016). The determinants of life satisfaction among adolescents: The role of metacognitive awareness and self-efficacy. S*ocial Indicators Research*, *125*(3), 977. doi: 10.1077/s11205-015-0861-5.

Collaborative for Academic, Social, and Emotional Learning. (2017). Core SEL competencies. Retrieved from http:// www.casel.org.Condly, S. J. (2006). Resilience in children: A review of literature with implications for education. *Urban Education*, *41*(3), 211-236. doi:10.1177/0042085906287902.

Cook, C., Frye, M., Slemrod, T., Lyon, A., Renshaw, T., & Zhang, Y. (2015). An integrated approach to universal prevention: Independent and combined effects of PBIS and SEL on youths' mental health. *School Psychology Quarterly: The Official Journal of the Division of School Psychology, American Psychological Association, 30*(2), 166-83. doi:10.1037/spq0000102.

Cooper, P., & Cefai, C. (2013). Evidence-based approaches to social, emotional and behavior difficulties in schools. *KEDI Journal of Educational Policy*, *10*(3), 81-101.

Crooks, C., Scott, K., Wolfe, D., Chiodo, D., & Killip, S. (2007). Understanding the link between childhood maltreatment and violent delinquency: What do schools have to add? *Child Maltreatment, 12*(3), 269-280.

Cowen, E. (1994). The enhancement of psychological wellness: Challenges and opportunities. *American Journal of Community Psychology, 22*(2), 149-79.

Crick, N. R. & Dodge, K. A. (1994). A review and reformulation of social information processing mechanisms in children's social adjustment. *Psychological Bulletin, 115(1)*, 74-101.

Daunic, A., Corbett, N., Smith, S., Barnes, T., Santiago-Poventud, L., Chalfant, P., & Gleaton, J. (2013). Integrating social-emotional learning with literacy instruction: An intervention for children at risk for emotional and behavioral disorders. *Behavioral Disorders*, *39*(1), 43-51.

Dee, T. S., & Jacob, B. A. (2010). The impact of No Child Left Behind on students, teachers, and schools. *Brookings Papers on Economic Activity*, *2010*(2), 149-194.

Denham, S. A., & Brown, C. (2010). Plays nice with others: Social–emotional learning and academic success. *Early Education and Development*, *21*(5), 652-680. doi:10.1080/10409290.2010.497450.

Doll, B. & Lyon, M. A. (1998). Risk and resilience: implications for the delivery of educational and mental health services in schools. *School Psychology Review, 27*(3), 348–363.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, *82*(1), 405-432. doi:10.1111/j.1467-8624.2010.01564.x

Dusenbury, L., Weissberg, R. P., Goren, P., & Domitrovich, C. (2014). State standards to advance social and emotional learning: Findings from CASEL's state scan of social and emotional learning standards, preschool through high school. Chicago, IL: CASEL.

Eisenberg, N., Cumberland, A., Spinrad, T. L., Fabes, R. A., Shepard, S. A., Reiser, M., ... & Guthrie, I. K. (2001). The relations of regulation and emotionality to children's externalizing and internalizing problem behavior. *Child Development*, *72*(4), 1112-1134.

Elias, M. J., Zins, J. E., Weissberg, R.P., Frey, K.S., Greenberg, M.T., Haynes, N.M., Kessler, R., Schwab-Stone, M.E., & Shriver, T.P. (1997). Promoting social and emotional learning: Guidelines for educators. *Association for Supervision and Curriculum Development*. Alexandria, VA.

Elliot, A., & Dweck, C. S. (2005). *Handbook of competence and motivation*. New York: Guilford Press.

Enriquez, G., Clark, S. R., & Della Calce, J. (2017). Using children's literature for Dynamic Learning Frames and Growth Mindsets. *Reading Teacher, 70*(6), 711-719.

Faust, J. J. (2006). *Preventing depression and anxiety: An evaluation of a social-emotional curriculum*. (Unpublished education specialist's thesis), University of Wisconsin, Whitewater. Retrieved from: https://strongkids.uorgeon,edu/reseasrch.html.

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine*, *14*(4), 245-258.

Felver, S. (2013). *A pilot study of Strong Start: Preliminary evidence of feasibility and efficacy of social and emotional learning in preschool* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3589502)

Fewkes, C. (2017). *The effectiveness of Strong Start curriculum on the social emotional competence of second grade students (*Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 10282759)

Feuerborn, L. L. (2004). *Promoting emotional resiliency through instruction: The effects of a classroom-based prevention program (*Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 313641)

Friedman, M., Keane, T. M., & Resick, P. A. (2014). *Handbook of PTSD: Science and practice* (2nd ed.). New York, NY: The Guilford Press.

Goleman, D. (1995). *Emotional Intelligence: Why it can matter more than I.Q.* New York, NY: Bantam Books.

Gooch, S. (2010). *An investigation of the effect of the Strong Start curriculum on three general outcome behaviors as measured by direct behavior ratings,* ProQuest Dissertations and Theses.

Greene, R. W. (2009). *Lost at school: Why our kids with behavioral challenges are falling through the cracks and how we can help them*. New York, NY: Simon and Schuster.

Greene, R. W. (2016). Collaborative & Proactive Solutions: Applications in schools and juvenile detention settings. Presented at symposium: Advances in conceptualization and treatment of youth with oppositional defiant disorder: A comparison of two major therapeutic models, *Eighth World Congress of Behavioural and Cognitive Therapies*. Melbourne, Australia.

Greenberg, M. T., Weissberg, R. P., O'brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist*, *58*(6-7), 466.

Gueldner, B. A. & Feuerborn, L. L. (2016). Bridging mindfulness-based practices with social and emotional learning: A conceptual review and application. *Mindfulness, 7*, 164-175. doi:10.1007/s/12671-015-0423-6.

Gueldner, B. A. (2007). *The effectiveness of a social-emotional learning program with middle school students in a general education setting and the impact of consultation support using performance feedback* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3276051)

Gunter, L., Caldarella, P., Korth, B. B., & Young, K. R. (2012). Promoting social and emotional learning in preschool students: A study of Strong Start Pre-K. *Early Childhood Education Journal, 40*(3), 151-159. doi:10.1007/s10643-012-0507.

Hagelskamp, C., Brackett, M. A., Rivers, S. E., & Salovey, P. (2013). Improving classroom quality with the RULER approach to social and emotional learning: Proximal and distal outcomes. *American Journal of Community Psychology, 51*(3/4), 530-543.

Harlacher, J. E., & Merrell, K. W. (2010). Social and emotional learning as a universal level of student support: Evaluating the follow-up effect of Strong Kids on social and emotional outcomes. *Journal of Applied School Psychology*, *26*(3), 212-229. doi:10.1080/15377903.2010.495903.

Horner, R., & Sugai, G. (2015). School-wide PBIS: An example of Applied Behavior Analysis implemented at a scale of social importance. *Behavior Analysis in Practice, 8*(1), 80-85.

Howard, B. (2014). *An examination of the effects of the Strong Start pre-kindergarten program on the behaviors of children with externalizing behavior disorders in a therapeutic preschool (*Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3680369)

Hurd, N., & Deutsch, N. (2017). SEL-focused after-school programs. *Future of Children, 27*(1), 95-115.

Isava, D. M. (2006). *An investigation of the impact of a social-emotional learning curriculum on problem symptoms and knowledge gains among adolescents in a residential treatment center* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3224095)

Jones, S. M., & Doolittle, E. J. (2017). Social and emotional learning: Introducing the issue. *Future of Children*, *27*(1), 3-11.

Klein, A. (2015). No Child Left Behind: An overview. *Education Week.* Retrieved from http://www.edweek.org/ew/section/multimedia/no-child-left-behind-overview-definition-summary.html.

Kohn, A. (1993). Why incentive plans cannot work. *Harvard Business Review*, *71(5),* 54-62.

Kramer, T. J., Caldarella, P., Christensen, L., & Shatzer, R. H. (2010). Social and emotional learning in the kindergarten classroom: Evaluation of the Strong Start curriculum. *Early Childhood Education Journal, 37*(4), 303-309. doi:10.1007/s10643-009-0354-8.

Kramer, T. J. (2013). *Evaluating social and emotional learning curriculum, Strong Kids, implemented school-wide* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3595037)

Lane, K. L., Kalberg, J. R., Bruhn, A. L, Driscoll, S. A., Wehby, J. H., & Elliott, S. N. (2009). Assessing social validity of school-wide positive behavior support plans: Evidence for the reliability and structure of the Primary Intervention Rating Scale. *School Psychology Review, 38*(1),135-144.

Lane, K. L., Menzies, H. M., Oakes, W. P., Lambert, W., Cox, M., & Hankins, K. (2012). A validation of the Student Risk Screening Scale for internalizing and externalizing behaviors: Patterns in rural and urban elementary schools. *Behavioral Disorders, 37(4)*, 244-270.

Lane, K. L., Oakes, W. P., & Magill, L. (2014). Primary prevention efforts: How do we implement and monitor the Tier 1 component of our comprehensive, integrated, three-tiered (CI3T) model? *Preventing School Failure*, *58(3)*, 143-158.

Levitt, V. (2009). *Promoting social emotional competency through quality teaching practices: The impact of consultation on a multidimensional treatment integrity model of the Strong Kids program (*Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3384666)

McKown, C. (2017). Social and emotional learning: A policy vision for the future. *The Future of Children: Policy Brief*. Retrieved from: http://www.futureofchildren.org/file/1001/download?token=YC4Mn3zR.

Maloney, J. E., Lawlor, M. S., Schonert-Reichl, K. A., & Whitehead, J. (2016). A mindfulness based social and emotional learning curriculum for school-aged children: The *MindUP* program. In K.A. Schonert-Reichl & R.W. Roeser (Eds.), *Handbook of mindfulness in education* (pp. 313-334). New York, NY: Springer-Verlag Publishing.

Marchant, M., Brown, M., Caldarella, P., & Young, E. (2010). Effects of Strong Kids curriculum on students with internalizing behaviors: A pilot study. *Journal of Evidence-Based Practices for Schools, 11*, 124-143.

Merrell, K. W., Juskelis, M. P., Tran, O. K., & Buchanan, R. (2008). Social and emotional learning in the classroom: Evaluation of Strong Kids and Strong Teens on students' social-emotional knowledge and symptoms. *Journal of Applied School Psychology*, *24*(2), 209-224. doi:10.1080/15377900802089981.

Merrell, K. W. (2010). Linking prevention science and social and emotional learning: The Oregon Resiliency Project. *Psychology in the Schools, 47(1),* 55-70.

Michigan's Integrated Behavior and Learning Support Initiative. (2017). SIBS and SRSS instructions. A grant funded initiative through the Michigan Department of Education, Office of Special Education. Retrieved from: https://miblsi.org.

Meiklejohn, J., Phillips, C., Freedman, M. L., Griffin, M. L., Biegel, G., Roach, A., ... & Isberg, R. (2012). Integrating mindfulness training into K-12 education: Fostering the resilience of teachers and students. *Mindfulness*, *3*(4), 291-307.

Mills, G.E. & Gay, L. R. (2011). *Educational research: Competencies for analysis and applications* (11th ed.). Boston, MA: Pearson Education Inc.

Miramontes, N. Y., Marchant, M., Heath, M. A., & Fischer, L. (2011). Social validity of a positive behavior interventions and support model. *Education and Treatment of Children, 34*(4), 445-468.

Moretti, J. (2010). *Screening with no smoke or mirrors.* RtI Network. Retrieved from www.rtinetwork.org/rti-blog/entry/1/96.

Morgan, A., Pendergast, D., Brown, R., & Heck, D. (2015). Relational ways of being an educator: Trauma-informed practice supporting disenfranchised young people. *International Journal of Inclusive Education*, *19*(10), 1037-1051. doi:10.1080/13603116.2015.1035344.

Muijs, D. (2011). *Doing quantitative research in education with SPSS.* London, ENG: SAGE Publications.

Nakayama, N. J. (2008). *An investigation of the impact of the Strong Kids curriculum on social-emotional knowledge and symptoms of elementary aged students in a self-contained special education setting* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3346660)

National Education Association. (2017). *Best practices for supporting students who have experienced domestic violence or sexual victimization.* Retrieved from http://www.nea.org/home/62845.html.

Nelson, J.R., & Lund, E.M. (2017). Bronfenbrenner's theoretical framework adapted to women with disabilities experiencing intimate partner violence. In Johnson, A.J, Nelson, J.R., Lund, E.M. *Religion, disability, and interpersonal violence* (11-23). New York, NY: Springer International Publishing.

Nielsen, L., Meilstrup, C., Nelausen, M. K., Koushede, V, Holstein, B. E., Weare, K., & Weare, K. (2015). Promotion of social and emotional competence: Experiences from a mental health intervention applying a whole school approach. *Health Education, 115*(3/4), 339-356. doi:10.1108/HE-03-2014-0039.

Noddings, N. (2005). *The challenge to care in schools: An alternative approach to education* (2nd ed.). New York: Teachers College Press.

Oregon Census Bureau. (2013). *East Portland hot spots: Neighborhood characteristics from the Census Bureau.* Retrieved from www.oregon.gov/dhs/businessservices/ofra/Documents/High%20Poverty%20Multnomh%20Portland%20East.pdf.

Payton, J. W., Wardlaw, D. M., Graczyk, P. A., Bloodworth, M. R., Tompsett, C. J., & Weissberg, R. P. (2000). Social and emotional learning: A framework for promoting mental health and reducing risk behavior in children and youth. *Journal of School Health*, *70*(5), 179-185.

Payton, J., Weissberg, R. P., Durlak, J. A., Dymnicki, A. B., Taylor, R. D., Schellinger, K. B., et al. (2008). The positive impact of social and emotional learning for kindergarten to eighth-grade students: Findings from three scientific reviews. Chicago: Collaborative for Academic, Social, and Emotional Learning.

Plumb, J. L., Bush, K. A., & Kersevich, S. E. (2016). Trauma-sensitive schools: An evidence-based approach. *School Social Work Journal*, *40*(2). 37-60.

Pong, S. (1998). The school compositional effect of single parenthood on 10th-grade achievement. *Sociology of Education, 71*(1), 23-42.

Positive Behavior Intervention Supports. (2017). *Technical Assistance Center.* Retrieved from https://www.pbis.org/.

Rae, T. (2012). Developing emotional literacy–approaches for staff and students developing an approach in the SEBD school. In J. Visser, H. Daniels, & T. Cole (Eds.) *Transforming troubled lives: Strategies and interventions for children with social, emotional and behavioural difficulties*. 1-19. Bingley, ENG: Emerald Group Publishing Limited.

Reeves, Douglas B. (2010). *Transforming Professional Development into Student Results*. Alexandria, VA: ASCD.

Ross, T. D. (2012). *Development of an implementation and evaluation plan for Strong Teens, a social and emotional learning curriculum* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3506376)

Schonert-Reichl, K., Roeser, R. W., & Maloney, J. E. (2016). *Handbook of mindfulness in education: Integrating theory and research into practice*. New York, NY: Springer.

Schwartz, M.C. (2016). *The implementation of a social-emotional learning curriculum for targeted students: Evaluating Strong Start as a Tier II Intervention* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (ProQuest No. 10186810)

Sicotte, J. L. (2012). *Effects of Strong Start curriculum on internalizing, externalizing behaviors, and emotion knowledge among kindergarten and first grade students* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3518282)

Skalski, A. K., & Smith, M. J. (2006). Responding to the mental health needs of students. *Principal Leadership*, *7*(1), 12-15.

Sugai, G., & Horner, R. R. (2006). A promising approach for expanding and sustaining school-wide positive behavior support. *School Psychology Review*, *35*(2), 245.

Sugai, G. & Simonsen, B. (2012). Positive behavior interventions and supports: History, defining features, and misconceptions. Retrieved from http://pbis.org/school/pbis_revisited.aspx.

Secretary's Commission on Achieving Necessary Skills. (2000). *Learning a living: A blueprint for high performance: A SCANS report for America 2000.* Washington, DC: U.S. Department of Labor.

Stormont, M., Reinke, W. M., Herman, K. C., & Lembke, E. S. (2012). *Academic and behavior supports for at-risk students: Tier-2 interventions*. Practical Intervention in the Schools Series. New York, NY: Guilford Press.

Swartz, M. (2017). Social and emotional learning. *Journal of Pediatric Health Care: Official Publication of National Association of Pediatric Nurse Associates & Practitioners, 31*(5), 521-522. doi:10.1016/j.pedhc.2017.06.001.

Talvio, M., Lonka, K., Komulainen, E., Kuusela, M., & Lintunen, T. (2013). Revisiting Gordon's Teacher Effectiveness Training: An intervention study on teachers' social and emotional learning. *Electronic Journal of Research in Educational Psychology, 11*(3), 693-716. doi:10.14204/ejrep.31.13073.

Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A meta-analysis of follow-up effects. *Child Development, 88*(4), 1156-1171. doi:10.1111/cdev.12864.

Thompson, K. L., Hannan, S. M., & Miron, L. R. (2014). Fight, flight, and freeze: Threat sensitivity and emotion dysregulation in survivors of chronic childhood maltreatment. *Personality and Individual Differences*, *69*, 28-32.

Tran, O. K. (2007). *Promoting social and emotional learning in schools: An investigation of massed versus distributed practice schedules and social validity of the Strong Kids curriculum in late elementary aged students*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.

(UMI No. 3276085)

Tudge, J., Payir, A., Mercon-Vargas, E., Cao, H., Liang, Y., Li, J., & O'Brien, L. (2016). Still misused after all these years? A reevaluation of the uses of Bronfenbrenner's Bioecological Theory of human development. *Journal of Family Theory and Review,8*(4), 427-445.

U.S. Department of Education. (2017). *The Elementary and Secondary Education Act of 1965, as amended by the Every Student Succeeds Act*. Retrieved from https://www.ed.gov/news/press-releases/us-secretary-education-betsy-devos-announces-release-updated-essa-consolidated-state-plan-template.

Walker, H.M. (2016). Foreword. In Carrizales-Engelmann D., Feuerborn, L.L., Gueldner, B.A. & Tran, O.K. (Eds.) *Strong kids 3-5: A social & emotional learning curriculum (*2nd ed.) (xiii – xiv*).* Baltimore, MD: Brookes Publishing.

Wallace, T. L., & Chhuon, V. (2014). Proximal processes in urban classrooms: Engagement and disaffection in urban youth of color. *American Educational Research Journal, 51*(5), 937-973. doi:10.3102/0002831214531324.

Wang, M.C., Haertel, G.D., & Walberg, H.J. (1997). Learning influences in Walberg, H.J. & Haertel, G.D. (Eds.), *Psychology and educational practice* (p. 199-211). Berkeley, CA: McCatchan.

Webster-Stratton, C., & Reid, M. J. (2004). Strengthening social and emotional competence in young children—The foundation for early school readiness and success: Incredible Years classroom social skills and problem-solving curriculum. Infants & Young Children, 17(2), 96-113.

Weissberg, R. P., & Greenberg. M. T. (1997). School and community competence enhancement and prevention programs. In W. Damon (Ed.), *Handbook of child psychology* (877-954). New York, NY: John Wiley.

Werner, E.E. (2000). Protective factors and individual resilience. In J. Shonkoff & S. Meisels (Eds.), *Handbook of early childhood intervention* (2nd ed., pp. 115-132). New York: Cambridge University Press. Werner, E. E., & Smith, R. S. (2001). *Journeys from childhood to midlife: Risk, resilience, and recovery*. Ithaca, NY: Cornell University Press.

West, S. D., Day, A. G., Somers, C. L., & Baroni, B. A. (2014). Student perspectives on how trauma experiences manifest in the classroom: Engaging court-involved youth in the development of a trauma-informed teaching curriculum. *Children and Youth Services Review*, *38*, 58-65.

Whitcomb, S. A. (2009). *Strong Start: Impact of direct teaching of a social emotional learning curriculum and infusion of skills on emotion knowledge of first grade students* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3384686)

Whitcomb, S., & Parisi Damico, D. M. (2016). *Merrell's Strong Start, grades K-2: A social and emotional learning curriculum* (2nd ed.). Baltimore, MD: Brookes Publishing.

White, N. J., & Rayle, A. D. (2007). Strong Teens: A school-based small group experience for African American males. *The Journal for Specialists in Group Work*, *32*(2), 178-189. doi:10.1080/01933920801227224.

Williams, D. (2015). *Effects of the Strong Kids curriculum as a targeted intervention for students at-risk for developing depressive disorders* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3715295)

Winsler, A., Kim, Y. K., & Richard, E. R. (2014). Socio-emotional skills, behavior problems, and Spanish competence predict the acquisition of English among English language learners in poverty. *Developmental Psychology, 50*(9), 2242-2254.

Witt, J.C. & Elliott, S.N. (1985). Acceptability of classroom intervention strategies. In Kratochwill, T.R. (Ed.), Advances in School Psychology, Vol. 4, 251-288. Mahwah, NJ: Erlbaum.

Wong, A.S., Li-Tsang, C.W., & Siu, A.M. (2014). Effect of a social emotional learning programme for primary school students. *Hong Kong Journal of Occupational Therapy, 24*(2), 56-63. doi:10.1016/j.hkjot.2014.11.001.

Zins, J. E., Weissberg, R. P., Wang, M. C, & Walberg, H. J. (Eds.). (2004). *Building academic success on social and emotional learning*: *What does the research say?* New York, NY: Teachers College Press.

Appendix A: Strong Kids Lesson Preparation Template

Lesson Outline	Purpose
Social-Emotional Competency Areas	CASEL (2017) endorsed five key areas necessary in building SEL skills (self-awareness, self-management, social, awareness, relationship skills, and responsible decision making); skills categories are listed for each lesson
Purpose and Objectives	Describes the skills students will learn
Materials needed	Lists the materials needed for advance preparation
Running short on time?	Suggests an optional stopping point to segment the lesson
Instructor Reflection	Provides opportunity for instructors to reflect on the content of the lesson to increase knowledge and personalize the application
Review	Lists topics covered in the previous lesson
Introduction	Introduces the concepts for the lesson
Mindfulness-Based Focusing Activity	Helps students focus and prepare for the lesson
Key Terms and Definitions	Provides an introduction to any relevant vocabulary
Instructional Content and Practice Activities	Provides content and activities specialized to each lesson's theme
Putting It All Together	Reviews the key concepts practiced in the lesson
Closure	Provides a brief breathing and reflection activity

Note. Adapted from Carrizales-Engelmann et al., 2016

Appendix B: Strong Kids Research

Study	*Level*	*Sample*	*Findings*
Barker, 2015	K	*N* = 70	Increase in positive interactions and decrease in negative interactions as measured by an adapted version of the Teacher Coder Impressions Inventory
Berry-Krazmien & Torres-Fernández, 2007	5-8	*N* = 19	Significant increases in knowledge. No significant changes in the self-report externalizing and internalizing symptoms.
Bruni, 2015	3	*n* = 109*	Statistically significant effect on student's motivation to learn and pro-social behaviors as measured by teacher rating.
Caldarella et al., 2009	K 2	*n=26*	Increases in teacher-reported social competence, strong treatment fidelity, strong social validity, decreases in teacher-reported internalizing problem symptoms.
Castro-Olivo, 2014	9-12	*n=40*	Large positive effect for knowledge, small negative effect for school belonging, and no meaningful effect size for symptoms of internalizing disorders or academic performance as reported by teachers.
Cook et al., 2015	4-5	*N = 191*	Students receiving both PBIS and SEL together demonstrated Moderate effect size for the use of *Strong Kids* combined with PBIS as compared to SEL or PBIS by itself.
Faust, 2006	9-12	*n=20**	No significant decrease in internalizing symptoms in either condition at the posttest.
Felver, 2013	Pre-K	*N=41*	Teachers reported feasibility, moderate to high levels of fidelity and limited training. Increases in SE strengths, knowledge, resilience, and prosocial behavior. Decreases in disruptive behavior.
Feuerborn, 2004	4a/8b**	*n=7**	Increases in student knowledge of healthy SE behavior, reductions in self-reported internalizing problem symptoms, strong treatment fidelity and social validity.
Fewkes, 2017	2***	*n=16**	SEL improved SE competence at school, but not supported in the home environment.
Gooch, 2010	2	*N = 4*	Targeted intervention for 2nd grade students. Greatest gains were made in reduction of disruptive behavior in the classroom. Two of four children responded significantly to the intervention.

Gueldner & Feuerborn, 2016	K-12	*n/a*	Mindfulness-based practices can be incorporated into SEL to promote growth academically and personally.
Gueldner, 2007	6	*n=86**	Increases in students' knowledge of healthy SE behavior, strong treatment fidelity, strong social validity, consultation and performance feedback to teachers did not result in better outcomes.
Gunter et al., 2012	Pre-K	*n=52**	Increase in emotional regulation. Internalizing behaviors decreased.
Harlacher & Merrell, 2010	3-4	*n=50**	Increase in students' knowledge of healthy social-emotional behavior, self-reported SE competence, and resilience, teacher-reported social competence, strong treatment fidelity, maintenance of treatment gains at short-term follow up.
Howard, 2014	Pre-K	*n=6**	Did not substantially add to the regular therapeutic program. Trend shown for improved positive non-verbal social interactions for the treatment group in the treatment setting.
Isava, 2006	9-12	*n=36**	Increase in SE knowledge, teacher rated social competency, parent-reported social competence, social validity; decrease in internalizing symptoms
Kramer, 2013	K-6	*n=348**	Second largest study to date. Significant reduction in internalizing behaviors and the prevention of worsening internalizing systems. Preventative effect with non-at-risk students. Modest increase in prosocial behaviors.
Kramer et al., 2010	K	*n=67*	Statistically significant results in prosocial behaviors, very large and moderate effect sizes.
Levitt, 2009	6-8	*n=3**	Increase in implementation fidelity for the teachers receiving performance feedback. The data did not indicate any substantial effects for the consultation group teachers with respect to quality of implementation or student responsiveness.
Marchant et al., 2010	3-5	*n=22*	Increase in students' SE knowledge, decrease in self-reported internalizing symptoms, maintenance of treatment gains at follow-up, decrease in teacher reported internalizing problems, strong social validity, maintenance of treatment gains.
Merrell et al., 2008	5-12	*n=120*	Statistically significant increase in knowledge and effective coping strategies, no meaningful self-reported problem symptoms; meaningful small effect.
Nakayama, 2008	3-5	*n=21*	Increased knowledge of healthy SE behavior, Increases in self-reported social-emotional competence and resilience, strong treatment fidelity, strong social validity.

Ross, 2012	9-12***	*n=27*	Lack of understanding for teaching SEL skills in the same manner that schools teach math or English. Lack of understanding for short-term vs long-term benefits for students, school, community and society.
Schwartz, 2016	2	*n=16**	No significant difference in behaviors. No interactions between intervention and time.
Sicotte, 2012	K-1	*n=24**	Significant increase in knowledge of SE concepts and moderate decrease in problem behaviors. Students and teachers found the content helpful and useful.
Tran, 2007	4-5	*n=256**	Statistically significant increases in knowledge of SE concepts and a decrease in symptoms from both study groups. Clinically meaningful effects for knowledge. Strong user satisfaction. Strong treatment fidelity, strong social validity, no outcome differences for pacing, but 12-week pacing has higher social validity.
Whitcomb, 2009	K-2	*N=88*	Statistically significant increase in knowledge. Correlations for problem behavior were moderate to high. Strong treatment fidelity, social validity, decreases in teacher-reported internalizing problem symptoms.
White & Rayle, 2007	9-12	*N=12*	Description of the adaptation of the *Strong Teens* curricular series as it was modified to meet the needs of African American males in a high school environment.
Williams, 2015	4-5	*N=11*	All participants showed improvement on at least one measure. Did not produce results as strong as Tier 1 intervention pilot studies. More significant the at-risk level the more significant the effect.
Wong et al., 2014	1-3	*n=14**	Culturally adapted version. Utilized 6 lessons of 12. Conducted in Hong Kong in a primary school. Results indicated SE learning can reduce problem behaviors in primary students.

Note. Adapted and expanded from Merrell, 2010.

***** Indicates that the study had a control group

** Indicates both grade levels had the same number of participants

***Indicates the study evaluated teachers as participants rather than students

Appendix C: Control Group Teacher Consent

Dear Colleague:

The purpose of this letter is to inform you of a research study being conducted by Michele Hetrick, a Doctoral candidate at the University of Portland together with her faculty advisor Dr. Hillary Merk. The purpose of this study is to examine the effects of the *Strong Kids* Social and Emotional Learning curriculum, being implemented school-wide at Pleasant Valley Elementary School. Your school, although not implementing the *Strong Kids* curriculum, has been selected to participate in this study as it is similar in demographics to Pleasant Valley, and will be used for comparison purposes.

You will be asked to complete **a norm-referenced, 12-item rating scale** on each of your students which measures internalizing (social withdrawal, anxiety, depression) and externalizing (aggression, bullying, impulsivity) behaviors in order to identify students in need of behavioral support. The time required to complete the form is approximately 20-30 min for your entire class. You will be asked to complete this form two times during the school year, once in early October and again in early January. **You will be given time in a staff meeting to conduct this work.**

You will also be asked to **have your students complete a 20-item *Strong Kids* Knowledge Assessment**. The test will be available via **a Google link** (which will be emailed to you) and each child will complete the test once beginning the week of 10/02/2017 and again during the week of 01/18/2018. Email notifications will be sent as reminders for the testing windows as you will not be teaching the curriculum. Both the rating scales and the knowledge tests will be calculated by the researcher and you will not have any responsibilities to tabulate the results.

There are no direct benefits to you. However, the results of this study will help further the validation of the *Strong Kids* Social and Emotional Learning curriculum in elementary school settings as a viable Tier 1 intervention for support students social and emotional wellness. No identifying information will be associated with the ratings you provide on each student. Any information you provide will be securely stored and only research personnel will have access to your data.

Your participation in this study is voluntary. You have the right to withdraw from this study at any time. Refusal to participate or withdrawing from this study will not affect your employment or standing within the district in any way. If you have any questions regarding this study, please contact Michele Hetrick at Hetrickm18@up.edu. If you have any questions with regards to your rights as a participant, you may contact the IRB Administrator, University of Portland, 5000 N. Willamette Blvd. Portland, OR 97203.

I have read and understood the above consent and am willing to participate in this study to evaluate the effectiveness of the *Strong Kids* curriculum.

Printed Name_____

Signature_____Date_____

Appendix D: SRSS Sample

TEACHER NAME

0 = *Never*
1 = *Occasionally*
2 = *Sometimes*
3 = *Frequently*

Use the above scale to rate each item for each student.

Student Name	**Externalizing**							**Internalizing**				
	Steal	**Lie, Cheat, Sneak**	**Behavior Problem**	**Peer Rejection**	**Low Academic Achievement**	**Negative Attitude**	**Aggressive Behavior**	**Emotionally Flat**	**Shy; Withdrawn**	**Sad; Depressed**	**Anxious**	**Lonely**

Lane et al., 2012

Appendix E: Strong Kids Fidelity Checklist

APPENDIX B

Basic Fidelity Checklist

STRONG KIDS

INSTRUCTIONS For each section, check the box if the lesson component was completed. If no items were implemented, check "Not" for not implemented. If some items were implemented, but not all, check "Partial" for partially implemented. If all items were implemented, check "Full" for fully implemented. In the Notes column, record the reason(s) for incomplete implementation of the component. In the Lesson Notes row, describe conditions that may have affected the fidelity for the lesson overall. Include any modifications made to the lessons.

Lesson Component	Level of Implementation			Notes
LESSON 1	Start time:		End time:	
Introduction	☐ Not	☐ Partial	☐ Full	
Pretest	☐ Not	☐ Partial	☐ Full	
Focusing Activity	☐ Not	☐ Partial	☐ Full	
Lesson Topics	☐ Not	☐ Partial	☐ Full	
Key Terms	☐ Not	☐ Partial	☐ Full	
Activity A	☐ Not	☐ Partial	☐ Full	
Activity B	☐ Not	☐ Partial	☐ Full	
Putting It All Together	☐ Not	☐ Partial	☐ Full	
Closure	☐ Not	☐ Partial	☐ Full	

Lesson notes:

Appendix F: Sample Pacing Communication

Hey Teachers -

All new fidelity checklists are out!

1. Thank you to all of you who have been so "on it" for both the lessons and the fidelity checklists. I am hearing great things about how the kids are talking about the *Strong Kids* lessons. The kinders and 1st graders are in love with Henry the dog. It really warms my heart to hear about them making great choices even if it is for a little pooch! Love to hear about your success and/or challenges. It makes us all better as we grow our kids together.

2. If you were missing any assessments I put them in your boxes along with next weeks' fidelity checklist.

3. Remember to put all fidelity checklists in my box, bring them to me directly, or send me an email and I will come get it!

As always, if there is anything I can do to ease the implementation process, let me know.

Thanks you guys for always doing what's best for our kids.

Appendix G: Strong Kids Knowledge Test Sample

APPENDIX A

Strong Kids Knowledge Test for Students in Grades 3–5

STRONG KIDS™

PRETEST ___ POSTTEST ___

Name _____ Grade _____ Age _____

School _____ Today's date _____

On the next few pages, you will be asked to answer questions to see how much you know about feelings, thoughts, and behaviors. Read each question carefully and choose what you think is the *best* answer for each question. You may not know the answers to all the questions and you may not have heard some of the words before, but try your best. You will not be graded on your answers. If you have any questions, please ask your teacher.

TRUE or FALSE

Read each sentence. If you think it is true or mostly true, circle the word *True*. If you think it is false or mostly false, circle the word *False*.

1.	True	False	If someone's hands are in fists and he or she is shaking, it could mean that there is a problem that the person needs to stop and figure out.
2.	True	False	Emotions feel the same for everyone.
3.	True	False	Stress can sometimes happen if you compare yourself to other people.
4.	True	False	We can choose to be nice to other people.
5.	True	False	Feeling uncomfortable sometimes is normal.
6.	True	False	Some emotions can be felt in our bodies.

MULTIPLE CHOICE

Circle the letter that goes along with the *best* answer for each question.

7. An example of an emotion that feels uncomfortable for most people is
   a. Hopeful
   b. Frustrated
   c. Curious
   d. Excited

8. What is an emotion?
   a. A thought you have about a situation
   b. Your inner voice inside your head
   c. A memory you have about something that happened to you
   d. A feeling that tells you something about a situation

(continued)

Appendix H: Strong Kids Rating Scale

as adapted from

Primary Intervention Rating Scale: Educator Survey

	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1. I find *Strong Kids* acceptable for this school.					
2. Most teachers found *Strong Kids* appropriate.					
3. *Strong Kids* should prove effective in meeting the stated purpose(s).					
4. I would suggest the use of a *primary plan* to other educators.					
5. Strong Kids is appropriate to meet the school's needs and mission.					
6. Most educators would find Strong Kids suitable for the described purpose(s) and mission.					
7. I would be willing to use Strong Kids in this school setting.					
8. Strong Kids would *not* result in negative side effects for the students.					
9. Strong Kids would be appropriate for a variety of students.					
10. Strong Kids is consistent with those I have used in other school settings.					
11. The Strong Kids components are a fair way to fulfill the plan's purposes.					
12. This primary plan is reasonable to meet the stated purpose(s).					
13. I like the procedures used in Strong Kids.					

14. Strong Kids is a good way to meet the specified purpose(s).					
15. Strong Kids' monitoring procedures are manageable.					
16. Strong Kids' monitoring procedures will give the necessary information to evaluate the plan.					
17. Overall, Strong Kids would be beneficial for this age group of students.					

Open-Ended Questions:

1. A) What do you feel is most beneficial about Strong Kids' components (Tier 1 efforts)?
   B) What is the least beneficial part?

2. Do you think that your and your students' participation in *Strong Kids* will cause your students' behavior, social, and/or learning problems to improve? Why or why not? Or if so, how?

3. What would you change about *Strong Kids* (components, design, implementation, etc.) to make it more student-friendly and educator-friendly?

4. What other information would you like to contribute about *Strong Kids*?

From: Lane, K. L., Kalberg, J. R., & Menzies, H. M. (2009). *Developing schoolwide programs to prevent and manage problem behaviors: A step-by-step approach*. New York, NY: Guilford Press.